OFFERING CIRCULAR

SP Group Treasury Pte. Ltd.

(UEN 201810357N)
(incorporated with limited liability under the laws of Singapore)

S$10,000,000,000
GLOBAL MEDIUM TERM NOTE PROGRAM

unconditionally and irrevocably guaranteed by

Singapore Power Limited

(UEN 199406577N)
(incorporated with limited liability under the laws of Singapore)

Under the Global Medium Term Note Program (the "Program") described in this Offering Circular, SP Group Treasury Pte. Ltd. (the "Issuer"), subject to compliance with all relevant laws, regulations and directives, may from time to time issue medium term notes (the "Notes") unconditionally and irrevocably guaranteed (the "Guarantee") by Singapore Power Limited ("SP" or the "Guarantor"). The aggregate nominal amount of Notes outstanding will not at any time exceed S$10,000,000,000 (or the equivalent in other currencies), unless such amount is otherwise increased pursuant to the terms of the Program.

Application has been made to the Singapore Exchange Securities Trading Limited (the "SGX-ST") for permission to deal in and quotation for any Notes which are agreed at the time of issue thereof to be so listed on the SGX-ST. Such permission will be granted when such Notes have been admitted to the Official List of the SGX-ST. Unlisted series of Notes may also be issued pursuant to the Program. The relevant Pricing Supplement in respect of any series of Notes will specify whether or not such Notes will be listed on the SGX-ST (or any other stock exchange). There is no assurance that the application to the SGX-ST for the listing of the Notes of such series will be approved. Admission to the Official List of the SGX-ST and quotation of any Notes on the SGX-ST is not to be taken as an indication of the merits of the Issuer, the Guarantor, their respective subsidiary companies (if any), their respective associated companies (if any) or such Notes. The SGX-ST assumes no responsibility for the correctness of any of the statements made, opinions expressed or reports contained herein.

Investing in the Notes involves risks. See "Risk Factors" beginning on page 13.

Notes of each series (as described in "Summary of the Program") to be issued in bearer form ("Bearer Notes" comprising a "Bearer Series") will initially be represented by interests in a temporary global Note or by a permanent global Note, in either case in bearer form (each a "Temporary Global Note" and a "Permanent Global Note", respectively), without interest coupons, which may be deposited on the relevant date of issue (the "Issue Date") with The Central Depository (Pte) Limited ("CDP"), subject to any restrictions or conditions which may be applicable (as specified in the relevant Pricing Supplement), or with a common depositary on behalf of Clearstream Banking, *S.A.* ("Clearstream") and Euroclear Bank S.A./N.V. ("Euroclear") or any other agreed clearance system compatible with Euroclear and Clearstream. Interests in a Temporary Global Note will be exchangeable, in whole or in part, for interests in a Permanent Global Note (each a "Global Note") on or after the date 40 days after the relevant Issue Date (the "Exchange Date"), upon certification as to non-U.S. beneficial ownership. Individual definitive Bearer Notes ("Definitive Bearer Notes") will only be available in certain limited circumstances as described herein.

Notes of each series to be issued in registered form ("Registered Notes" comprising a "Registered Series") sold in an "offshore transaction" to non-U.S. persons within the meaning of Regulation S ("Regulation S") under the U.S. Securities Act of 1933, as amended (the "Securities Act"), will initially be represented by interests in a global unrestricted Registered Note, without interest coupons (each a "Regulation S Global Note"), which may be deposited on the Issue Date with, and registered in the name of, CDP, subject to any restrictions or conditions which may be applicable (as specified in the relevant Pricing Supplement), or a common depositary for, and registered in the name of a nominee of, Euroclear and Clearstream, or a custodian for, and registered in the name of a nominee of, The Depository Trust Company ("DTC"). Beneficial interests in a Regulation S Global Note will be shown on, and transfers thereof will be effected only through, records maintained by CDP, Euroclear or Clearstream, or DTC. Notes of each Registered Series sold to a qualified institutional buyer ("QIB") within the meaning of Rule 144A under the Securities Act ("Rule 144A"), as referred to in, and subject to the transfer restrictions described in, "Plan of Distribution" will initially be represented by interests in a global restricted Registered Note, without interest coupons (each a "Restricted Global Note" and together with any Regulation S Global Notes, the "Registered Global Notes"), which will be deposited on the Issue Date with a custodian for, and registered in the name of a nominee of, DTC. Beneficial interests in a Restricted Global Note will be shown on, and transfers thereof will be effected only through, records maintained by DTC and its participants. See "Annex B — Global Clearance and Settlement". Individual definitive Registered Notes ("Definitive Registered Notes") will only be available in certain limited circumstances as described herein.

The Guarantor has been assigned an overall corporate credit rating of "Aa2" by Moody's Investors Service, Inc. ("Moody's") and "AA" by S&P Global Ratings Services, a division of The McGraw-Hill Companies, Inc. ("S&P"). Notes issued under the Program may be rated or unrated. Where an issue of Notes is rated, such rating will not necessarily be the same as the rating(s) assigned to the Guarantor. A rating is not a recommendation to buy, sell or hold securities and may be subject to suspension, reduction or withdrawal at any time by the assigning rating agency.

The Notes and the Guarantee have not been and will not be registered under the Securities Act or with any securities regulatory authority of any state or other jurisdiction of the United States and the Notes may include Bearer Notes that are subject to U.S. tax law requirements. Subject to certain exceptions, the Notes may not be offered, sold or, in the case of Bearer Notes, delivered within the United States or its possessions or to, or for the account or benefit of, U.S. persons (as defined in the U.S. Internal Revenue Code of 1986, as amended (the "Internal Revenue Code")). See "Notice to Purchasers and Holders of Registered Global Notes and Transfer Restrictions".

This Offering Circular is an advertisement and is not a prospectus for the purposes of EU Directive 2003/71/EC, as amended, to the extent that such amendments have been implemented in any such Member State (the "Prospectus Directive") and/or Part VI of the United Kingdom Financial Services and Markets Act 2000 or otherwise.

Arrangers

DBS Bank Ltd. Deutsche Bank AG, Singapore Branch Morgan Stanley Asia (Singapore) Pte.

Dealers

BNP PARIBAS Crédit Agricole CIB DBS Bank Ltd. Deutsche Bank HSBC

Mizuho Securities Morgan Stanley OCBC Bank United Overseas Bank

The date of this Offering Circular is October 25, 2018

Powering the nation

Rigorous checks conducted to ensure the reliability of gas supply

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In making an investment decision, investors must rely on their own examination of the Issuer, SP, the terms of the Program and any of the terms and conditions of any series of Notes offered thereunder.

Notwithstanding anything herein to the contrary, each prospective purchaser (and each employee, representative or other agent of each prospective purchaser) may disclose to any and all persons, without limitation of any kind, the U.S. tax treatment and U.S. tax structure of the transactions contemplated by this Offering Circular, and all materials of any kind (including opinions or other tax analyses) that are provided to it relating to such U.S. tax treatment and U.S. tax structure. However, this authorization does not extend to information that may be required to be kept confidential in order to comply with applicable securities laws. Each prospective purchaser further acknowledges and agrees that it does not know or have reason to know that its or its employees', representatives' or other agents' use or disclosure of information relating to the U.S. tax treatment or U.S. tax structure of any transaction contemplated by this Offering Circular is limited in any manner.

By receiving this Offering Circular, investors acknowledge that (i) they have been afforded an opportunity to request and to review, and have received, all information that investors consider necessary to verify the accuracy of, or to supplement, the information contained in this Offering Circular, (ii) they have not relied on any Arranger or Dealer or any person affiliated with any Arranger or Dealer in connection with their investigation of the accuracy of any information in this Offering Circular or their investment decision and (iii) no person has been authorized to give any information or to make any representation concerning the issue or sale of the Notes, the Issuer or SP other than as contained in this Offering Circular and, if given or made, any such other information or representation should not be relied upon as having been authorized by the Issuer, SP, the Arrangers or the Dealers.

Certain information in this Offering Circular has been extracted from publicly available documents and information. None of such documents or publicly available information is incorporated by reference in this Offering Circular. Each of the Issuer and SP makes no representation, express or implied, and does not accept any responsibility with respect to the accuracy or completeness of any information made publicly available, whether or not included in this Offering Circular.

In the case of any Notes which are to be admitted to trading on a regulated market within the European Economic Area or offered to the public in a Member State of the European Economic Area in circumstances which require the publication of a prospectus under the Prospectus Directive, the minimum specified denomination of such Notes shall be €100,000 (or its equivalent in any other currency as of the date of issue of the Notes).

No person has been authorized to give any information or to make any representation that is not contained in this Offering Circular in connection with the issue or sale of the Notes and, if given or made, such information or representation must not be relied upon as having been authorized by the Issuer, SP, or any of the Dealers or any of the Arrangers. Neither the delivery of this Offering Circular nor any sale made in connection herewith shall, under any circumstances, create any implication that there has been no change in the affairs of the Issuer, SP or SP Group since the date hereof or the date upon which this Offering Circular has been most recently amended or supplemented or that there has been no adverse change in the financial position of the Issuer, SP or SP Group since the date hereof or the date upon which this Offering Circular has been most recently amended or supplemented or that any other information supplied in connection with the Program is correct as of any time subsequent to the date on which it is supplied or, if different, the date indicated in the document containing the same.

The distribution of this Offering Circular or any Pricing Supplement and the offering of the Notes in certain jurisdictions may be restricted by law. Persons into whose possession this Offering Circular comes are required by the Issuer, SP, the Arrangers and the Dealers to inform themselves about and to observe any such restrictions. For a description of certain further restrictions on offers and sales of Notes and distribution of this Offering Circular, see "Plan of Distribution" and "Notice to Purchasers and Holders of Registered Global Notes and Transfer Restrictions". This Offering Circular does not constitute an offer to sell or the solicitation of an offer to buy any Notes in any jurisdiction to any person to whom it is unlawful to make the offer or solicitation in such jurisdiction.

The Arrangers and the Dealers have not separately verified the information contained in (or incorporated into) this Offering Circular. To the fullest extent permitted by law, none of the Arrangers or the Dealers makes any representation, express or implied, or accepts any responsibility, with respect to the accuracy or completeness of any of the information in (or incorporated into) this Offering Circular or for any statement, made or purported to be made, by any of the Arrangers or any of the Dealers or on the behalf in connection with the Issuer, SP or the issue and offering of the Notes. The Arrangers and the Dealers accordingly disclaim all and any liability whether arising in tort or contract or otherwise (save as referred to above) which they might otherwise have in respect of this Offering Circular or any such statement. Neither this Offering Circular nor any other financial statements are intended to provide the basis of any credit or other evaluation and should not be considered as a recommendation by any of the Issuer, SP, the Arrangers or the Dealers that any recipient of this Offering Circular or any other person should purchase the Notes. Each potential purchaser of Notes should determine for itself the relevance of the information contained in this Offering Circular and its purchase of Notes should be based upon such investigation as it deems necessary. None of the Arrangers or the Dealers undertakes to review the financial condition or affairs of the Issuer, SP or SP Group during the life of the arrangements contemplated by this Offering Circular nor to advise investors of any information coming to the attention of any of the Arrangers or the Dealers.

In connection with the issue of any series of Notes, one or more Dealers named as stabilizing manager (the "Stabilizing Manager(s)") (or persons acting on behalf of any Stabilizing Manager) in the applicable Pricing Supplement may over-allot Notes or effect transactions with a view to supporting the market price of the Notes at a level higher than that which might otherwise prevail for a limited period after the relevant Issue Date. However, there is no assurance that the Stabilizing Manager(s) (or persons acting on behalf of any Stabilizing Manager) will undertake stabilization action. Any stabilization action may begin on or after the date on which adequate public disclosure of the terms of the offer of the relevant series of Notes is made and, if begun, may be discontinued at any time without notice, but it must end no later than the earlier of 30 days after the Issue Date of the relevant series of Notes and 60 days after the date of the allotment of the relevant series of Notes. Any stabilization action or over allotment must be conducted by the relevant Stabilization Manager(s) or person(s) acting on behalf of any Stabilization Manager(s) in accordance with all applicable laws and rules.

The Notes and the Guarantee have not been and will not be registered under the Securities Act, and the Notes may include Bearer Notes that are subject to U.S. tax law requirements. Subject to certain exceptions, the Notes may not be offered or sold or, in the case of Bearer Notes, delivered within the United States or its possessions or to, or for the account or benefit of, U.S. persons (as defined in the Internal Revenue Code).

The Notes may be offered and sold (1) outside the United States to non-U.S. persons in reliance on Regulation S, (2) within the United States or to, or for the account or benefit of, U.S. persons to QIBs in reliance on Rule 144A and/or (3) otherwise pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act and applicable U.S. state and local laws. Potential investors are hereby notified that sellers of the Notes may be relying on the exemption from the provisions of Section 5 of the Securities Act provided by Rule 144A. For a description of these and certain further restrictions on offers, sales and transfers of the Notes and distribution of this Offering Circular, see "Plan of Distribution" and "Notice to Purchasers and Holders of Registered Global Notes and Transfer Restrictions".

The Notes have not been approved or disapproved by the U.S. Securities and Exchange Commission, any State securities commission in the United States or any other U.S. regulatory authority, nor have any of the foregoing authorities passed upon or endorsed the merits of the offering of the Notes or the accuracy or adequacy of this Offering Circular. Any representation to the contrary is a criminal offense in the United States.

This Offering Circular is only being distributed to and is only directed at: (i) persons who are outside the United Kingdom; or (ii) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "Order"); or (iii) high net worth companies, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons"). In addition, there are restrictions on the offer and sale of the Notes in the United Kingdom. The Notes are only available to, and any invitation, offer or agreement to subscribe, purchase or otherwise acquire the Notes will be engaged in only

with, relevant persons. Any person who is not a relevant person should not act or rely on this Offering Circular or any of its contents. All applicable provisions of the Financial Services and Market Act 2000, as amended (the "FSMA") with respect to anything done by any person in relation to the Notes in, from or otherwise involving the United Kingdom must be complied with. See "Plan of Distribution". In connection with the offering of any series of Notes, each Dealer is acting or will act for the Issuer in connection with the offering and no one else and will not be responsible to anyone other than the Issuer for providing the protections afforded to clients of that Dealer nor for providing advice in relation to any such offering.

This Offering Circular has not been registered as a prospectus with the Monetary Authority of Singapore (the "MAS"). Accordingly, this Offering Circular and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Notes may not be circulated or distributed, nor may the Notes be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined in the Securities and Futures Act, Chapter 289 of Singapore (the "SFA")) under Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the Notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(a) a corporation (which is not an accredited investor (as defined in the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

the securities or securities-based derivatives contracts (each as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the Notes pursuant to an offer made under Section 275 of the SFA except:

(1) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

(2) where no consideration is or will be given for the transfer;

(3) where the transfer is by operation of law; or

(4) as specified in Section 276(7) of the SFA.

Any reference to the SFA is a reference to the Securities and Futures Act, Chapter 289 of Singapore and a reference to any term as defined in the SFA or any provision in the SFA is a reference to that term as modified or amended from time to time including by such of its subsidiary legislation as may be applicable at the relevant time.

Notification under Section 309B(1)(c) of the SFA: Unless otherwise stated in the Pricing Supplement in respect of any Notes, all Notes issued or to be issued under the Program shall be prescribed capital markets products (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

MiFID II Product Governance/target market: The Pricing Supplement may include a legend entitled "MiFID II Product Governance" which will outline the target market assessment in respect of the Notes and which channels for distribution of the Notes are appropriate. Any person subsequently offering, selling or recommending the Notes (a "distributor") should take into consideration the target market assessment; however, a distributor subject to Directive 2014/65/EU (as amended, "MiFID II") is responsible for undertaking its own target market assessment in respect of the Notes (by either adopting or refining the target market assessment) and determining appropriate distribution channels.

A determination will be made in relation to each issue about whether, for the purpose of the MiFID Product Governance rules under EU Delegated Directive 2017/593 (the "MiFID Product Governance Rules"), any Dealer subscribing for any Notes is a manufacturer in respect of such Notes, but otherwise, unless so determined, neither the Arranger nor the Dealers nor any of their respective affiliates will be a manufacturer for the purpose of the MiFID Product Governance Rules.

PROHIBITION OF SALES TO EEA RETAIL INVESTORS: If the Pricing Supplement in respect of any Notes includes a legend entitled "Prohibition of Sales to EEA Retail Investors," the Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area ("EEA"). For these purposes, a retail investor in the EEA means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of MiFID II; or (ii) a customer within the meaning of Directive 2002/92/EC (as amended, the "Insurance Mediation Directive"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in the Prospectus Directive. Consequently, no key information document required by Regulation (EU) No 1286/2014 (as amended, the "PRIIPs Regulation") for offering or selling the Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

If a jurisdiction requires that the offering be made by a licensed broker or dealer and the Dealer or any affiliate of the Dealers is a licensed broker or dealer in that jurisdiction, the offering shall be deemed to be made by that Dealer or its affiliate on behalf of the Issuer in such jurisdiction.

For a description of other restrictions, see "Plan of Distribution" and "Notice to Purchasers and Holders of Registered Global Notes and Transfer Restrictions".

DOCUMENTS INCORPORATED BY REFERENCE

This Offering Circular is to be read in conjunction with all documents which are deemed to be incorporated by reference and is to be read and construed on the basis that such documents are so incorporated. The following documents shall be incorporated in, and form part of, this Offering Circular:

(a) all supplements or amendments to this Offering Circular circulated by the Issuer from time to time, including each relevant Pricing Supplement;

(b) any announcements of the Issuer made via SGXNET; and

(c) all documents issued by the Issuer and specified in a supplement or amendment to this Offering Circular as being incorporated by reference in this Offering Circular.

All documents incorporated by reference will be available, free of charge, from the offices of the Paying Agent (as defined herein) in Singapore.

AVAILABLE INFORMATION

Each of the Issuer and SP has agreed that, for so long as any Notes are "restricted securities" within the meaning of Rule 144(a)(3) under the Securities Act, it will, during any period in which it is neither subject to Section 13 or 15(d) of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") nor exempt from reporting pursuant to Rule 12g3-2(b) thereunder, provide to any holder or beneficial owner

of such restricted securities or to any prospective purchaser of such restricted securities designated by such holder or beneficial owner for delivery to such holder, beneficial owner or prospective purchaser, in each case upon the request of such holder, beneficial owner or prospective purchaser, the information required to be provided by Rule 144A(d)(4) under the Securities Act.

ENFORCEMENT OF CIVIL LIABILITIES

Each of the Issuer and SP is a company incorporated in Singapore. All of the Issuer's and SP's directors and executive officers (and certain of the parties named in this Offering Circular) reside outside the United States, and all or a substantial portion of the assets of the Issuer and SP and such persons are located outside the United States. As a result, it may not be possible for investors to effect service of process within the United States upon the Issuer or SP or such persons, or to enforce against the Issuer or SP or such persons outside of the United States courts judgments obtained in United States courts including judgments predicated upon the civil liability provisions of the securities laws of the United States or any state or territory within the United States.

Each of the Issuer and SP has, however, appointed CT Corporation System, 111 Eighth Avenue, New York, New York 10011 as its authorized agent upon which process may be served in any suit or proceeding arising out of or relating to the Notes (other than Notes expressed to be governed by the laws of Singapore) that may be instituted in any federal or state court in the City of New York or brought under U.S. federal or state securities laws. Furthermore, a judgment for money in an action based on such Notes in a federal or state court in the United States ordinarily would be enforced in the United States only in U.S. dollars. The date used by such a court to determine the rate of conversion of Singapore dollars into U.S. dollars will depend on various factors, including which court renders the judgment. Under Section 27 of the New York Judiciary Law, a state court in the State of New York rendering a judgment on Notes denominated in Singapore dollars would be required to render such judgment in Singapore dollars, and such judgment would be converted into U.S. dollars at the exchange rate prevailing on the date of entry of the judgment. Judgments of United States courts based upon the civil liability provisions of the federal securities laws of the United States may not be enforceable in Singapore courts and there is doubt as to whether Singapore courts will enter judgments in original actions brought in Singapore courts based solely upon the civil liability provisions of the federal securities laws of the United States.

FORWARD-LOOKING STATEMENTS

This Offering Circular includes "forward-looking statements" within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. All statements other than statements of historical facts included in this Offering Circular, including, without limitation, those regarding the Issuer's, SP's or SP Group's financial position, business strategy, plans and objectives of management for future operations relating to the Issuer's, SP's or SP Group's products and business, are forward-looking statements. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the Issuer's, SP's or SP Group's actual results, performance or achievements, or industry results, to be materially different from those expressed or implied by such forward-looking statements. Such forward-looking statements are based on numerous assumptions regarding the Issuer's, SP's or SP Group's present and future business strategies and the environment in which they will operate in the future. Among the important factors that could cause the actual results, performance or achievements to differ materially from those in the forward-looking statements include, among others, changes in Government regulation and licensing of the SP Group's business activities in Singapore, the condition of and changes in the local, regional or global economy, and increased competition from alternative fuel sources and changes in technology affecting the electricity and gas transmission and distribution industry in Singapore. Additional factors that could cause actual results, performance or achievements to differ materially include, but are not limited to, those discussed under "Risk Factors", "Management's Discussion and Analysis of Financial Condition and Results of Operations", "Industry and Regulation" and "Business of SP Group". These forward-looking statements speak only as of the date of this Offering Circular. The Issuer and SP expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statement contained herein to reflect any change in the expectations of the Issuer and SP with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

Given the uncertainties of forward-looking statements, there can be no assurance that projected results or events will be achieved and investors are cautioned not to place undue reliance on such statements.

PRESENTATION OF FINANCIAL AND OTHER INFORMATION

SP Group maintains its financial books and records in Singapore dollars and in accordance with the Singapore Financial Reporting Standards ("SFRS"), which differs in certain respects from International Financial Reporting Standards ("IFRS") and generally accepted accounting principles in the United States ("U.S. GAAP"). As a result, SP Group's financial statements and reported earnings could be different from those which would be reported under IFRS or U.S. GAAP. Such differences may be material. This Offering Circular does not contain a reconciliation of SP Group's financial statements to IFRS or U.S. GAAP nor does it include any information in relation to the differences between SFRS and IFRS or U.S. GAAP. Had the financial statements and other financial information been prepared in accordance with IFRS or U.S. GAAP, the results of operations and financial position may have been materially different. In making an investment decision, investors must rely upon their own examination of SP Group, the terms of the particular series of Notes and the financial information relating to SP Group. Potential investors should consult their own professional advisors for an understanding of these differences between SFRS and IFRS or U.S. GAAP, and how such differences might affect the financial information contained herein. SP Group will adopt Singapore Financial Reporting Standards (International) ("SFRS(I)s"), Singapore's equivalent of the IFRS on 1 April 2018. SP Group has performed an initial assessment of the impact of adopting the new financial reporting framework, and expects no material impact arising from the adoption.

In this Offering Circular, certain non-SFRS financial measures and ratios are used, including "EBITDA" "EBITDA margin" and "Net Revenue", each with the meanings and as calculated as set forth in "Selected Financial and Other Data". These measures are presented because SP Group believes that they and similar measures are widely used in the markets in which SP Group operates as a means of evaluating a company's operating performance and financing structure. These measures may not be comparable to other similarly titled measures of other companies and are not measurements under SFRS, IFRS or U.S. GAAP, or other generally accepted accounting principles, nor should they be considered as substitutes for the information contained in SP Group's historical financial statements prepared in accordance with SFRS included in this Offering Circular.

Unless otherwise specified or the context otherwise requires, in this Offering Circular references to "km" are to kilometers; references to "kWh", "GWh" and "MWh" are to kilowatt-hours, gigawatt-hours and megawatt-hours, respectively; references to "kVA" are to kilovolt-amperes; references to "kW" and "MW" are to kilowatts and megawatts, respectively; references to "U.S.$" or "U.S. dollars" are to the lawful currency of the United States of America; references to "Singapore" are to the Republic of Singapore; references to "S$" or "Singapore dollars" are to the lawful currency of the Republic of Singapore; references to "A$" or "Australian dollars" are to the lawful currency of Australia; references to "£" or "sterling" are to pounds sterling, the lawful currency of the United Kingdom; references to "JPY" or "Japanese Yen" are to the lawful currency of Japan; references to "Hong Kong dollars" are to the lawful currency of Hong Kong; and references to the "Government" are to the Government of the Republic of Singapore.

For the avoidance of doubt, (i) the information on use of system charges charged by SPPA in this Offering Circular includes the portion attributable to the Tunnels owned under the SPCIT Trust (each as defined herein), and (ii) for the purpose of business segment information, the financial information relating to the "Others" segment in this Offering Circular includes inter-segment elimination.

For the convenience of the reader, this Offering Circular contains translations of some Singapore dollar amounts into U.S. dollars as of and for the period ending March 31, 2018 based on the exchange rate of S$1.3105 per U.S.$1.00, which was the noon buying rate in the City of New York as certified for customs purposes by the Federal Reserve Bank of New York for cable transfers (the "Noon Buying Rate") for Singapore dollars on March 31, 2018. However, such translations should not be construed as representations that Singapore dollar amounts have been, could have been or could be converted into U.S. dollars at that or any other rate. See "Exchange Rates". As at October 19, 2018 (the "Latest Practicable Date"), the exchange rate between Singapore dollars and U.S. dollars was U.S.$1.00 to S$1.3768.

See "Annex A — Glossary" for a description of certain technical terms commonly used in relation to SP Group's business.

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SUMMARY

The following summary is qualified in its entirety by, and is subject to, the more detailed information and financial statements contained or referred to elsewhere in this Offering Circular, including the sections regarding "Risk Factors", "Management's Discussion and Analysis of Financial Condition and Results of Operations", "Industry and Regulation" and "Business of SP Group".

Unless the context otherwise requires, in this Offering Circular, references to "the Company" and "the Issuer" refer to SP Group Treasury Pte. Ltd; references to "SP" and "the Guarantor" refer to Singapore Power Limited; references to the "SP Group" refer to SP and its subsidiaries, taken as a whole; references to "SPPA" or "SP PowerAssets" refer to SP PowerAssets Limited, the company in SP Group which engages in the Electricity Authorised Business; references to "PowerGas" refer to PowerGas Limited, the company in SP Group which engages in the Gas T&D Business; references to "SP PowerGrid", "SPPG" or "the Manager" refer to SP PowerGrid Limited, the management company in SP Group that manages the Electricity T&D Business (on behalf of the Electricity T&D Group) and the Gas T&D Business (on behalf of PowerGas); references to "SP Services" refer to SP Services Limited, the company in SP Group which engages in the Market Support Services Business, and references to "SDC" refer to Singapore District Cooling Pte Ltd, the company in SP Group which engages in the District Cooling Services Business. In addition, references to "Electricity T&D Group" refer to SPPA (in its own capacity as well as in its capacity as the Trustee-Manager (as defined herein)).

Overview

SP Group is a leading energy utility company in Asia Pacific, with total assets of S$19.2 billion as of March 31, 2018 and S$1.0 billion of profit attributable to its owner for the financial year ended March 31, 2018. SP Group owns and operates electricity and gas transmission and distribution businesses and a market-support services business in Singapore, and holds an interest in two Australian companies which are engaged in the transmission and distribution of electricity and gas in Australia. SP Group also owns and operates one of the world's largest underground district cooling network that is located in Singapore, and SP Group is also setting up district cooling operations in China. As of March 31, 2018, SP Group's Electricity T&D Business, Gas T&D Business and Market Support Services Business serve more than 1.58 million industrial, commercial and residential customers in Singapore. SP Group's electricity and gas transmission and distribution networks are amongst the most reliable and cost-effective worldwide.

SP Group's core business comprises the following segments:

- **Transmission and distribution business in Singapore**

  SP Group's transmission and distribution business in Singapore is substantially driven by the Electricity T&D Business and also includes the Gas T&D Business. SPPA, a wholly-owned subsidiary of SP, is the sole Transmission Licensee in Singapore, and owns and maintains the electricity transmission and distribution network that delivers power to substantially all electricity consumers in Singapore. PowerGas, a wholly-owned subsidiary of SP, is also the sole Gas Transporter Licensee and gas system operator in Singapore, and owns, operates and maintains the gas transmission and distribution network that delivers both natural gas and town gas to substantially all gas end users in Singapore.

  Profit for the year from this segment accounted for 60%, 62% and 64% of SP Group's total profit for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively. Total assets of this segment accounted for 68%, 67% and 66% of SP Group's total assets for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively.

- **Investments in Australia**

  SP Group holds an interest in two Australian companies, which are engaged in the transmission and distribution of electricity and gas in Australia. SP Group owns a 40% interest in SGSP (Australia) Assets Pty Ltd ("SGSPAA") and a 31.1% interest in AusNet Services Limited ("AusNet Services"), a company listed on the Australian Securities Exchange ("ASX").

SP Group seeks to create and optimize risk-adjusted returns of its investments over the long term. SP Group aims to add value to its investee companies through board representations, exercising governance and oversight at the board level and providing inputs on the strategic direction of its investee companies.

SP Group's profit for the year from its investments in Australia accounted for 26%, 21% and 18% of SP Group's total profit for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively. Total assets of this segment accounted for 17%, 17% and 15% of SP Group's total assets for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively.

- **Market Support Services Business**

SP Services, a wholly-owned subsidiary of SP, is the only MSSL in Singapore. SP Services also facilitates competition in the retail electricity market by enabling consumers to switch seamlessly between buying electricity from Retail Licensees and at wholesale market prices, and by acting as a Retailer of Last Resort. SP Services also acts as billing agent to certain Retail Licensees and other utility principals. These principals include PUB, Citygas and various refuse vendors, to whom SP Services provides billing, meter reading (where applicable) and other customer services for gas, water and refuse utilities.

SP Group's profit for the year from this segment accounted for 8%, 8% and 13% of SP Group's total profit for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively. Total assets of this segment accounted for 6%, 7% and 7% of SP Group's total assets for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively.

- **Others**

The "Others" segment comprises certain other activities, including (without limitation) investment holding services and the businesses described below.

District Cooling

SDC, a wholly-owned subsidiary of SP, currently provides district cooling services to developments in Singapore and China. In addition to providing district cooling services to developments within the service area designated by the District Cooling (Declaration of Service Area) Notification 2006 under the District Cooling Act, SDC also engages in the production and supply of chilled water for air-conditioning purposes to developments outside of the service area, as well as the production and supply of hot water to the developments and provision of consultancy services on the design, implementation and operation of chiller and heating/ventilation/air conditioning ("HVAC") systems globally.

Real Estate

In support of Singapore's national agenda to optimize land use, SP Group has embarked on the optimization of land use through the development of an underground transmission substation and building of commercial property above the underground substation. This real estate development project which comprises SPPA's underground transmission substation and operational support center, and a commercial office tower, is located along Pasir Panjang Road in Singapore. It is planned for completion in end 2025.

Digital Solutions

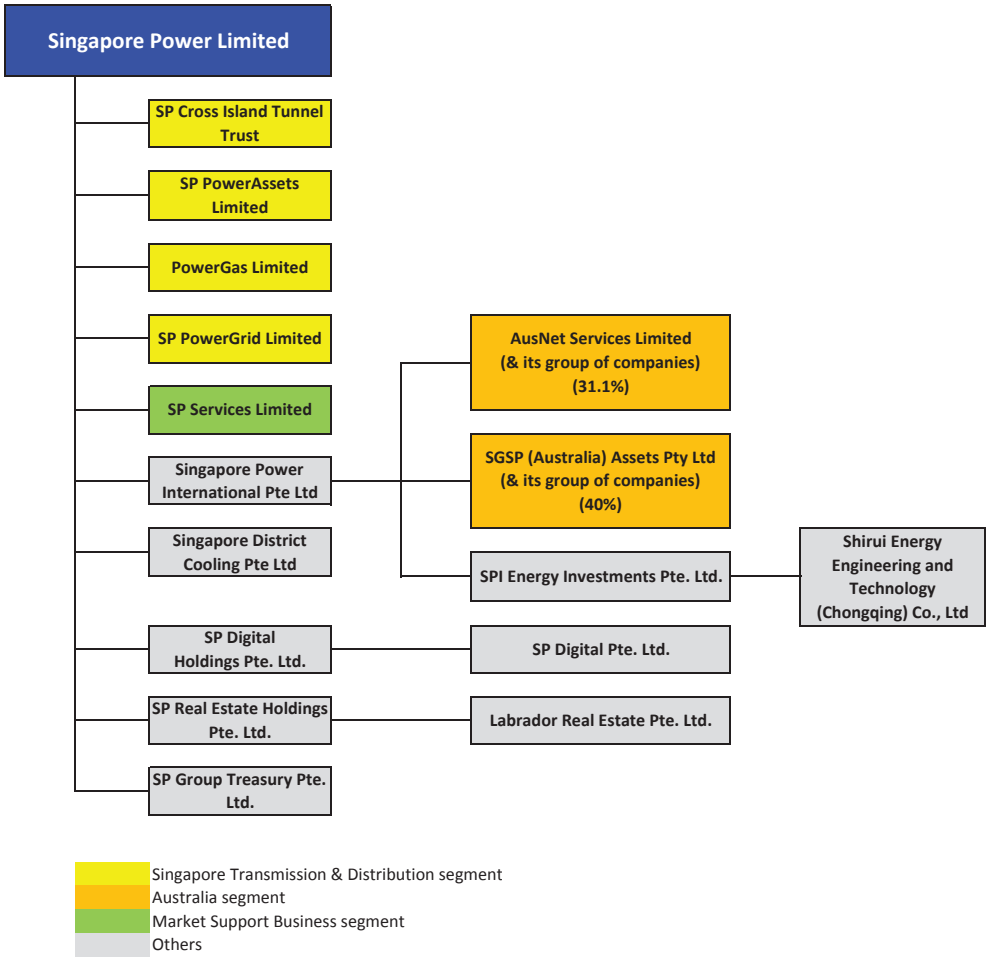
SP Group aims to capture new digital opportunities across the electricity value chain, with a vision to empower utilities and its customers to accelerate towards their sustainability goals by leveraging on its strong in-house digital capabilities in order to design and develop a digital platform to connect and orchestrate the network assets and energy assets across the electricity value chain as well as to connect customers to the ecosystem.

SP Group's profit for the year from the "Others" segment accounted for 6%, 9% and 5% of SP Group's total profit for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively. Total assets of this segment accounted for 9%, 9% and 12% of SP Group's total assets for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively.

The Guarantor has been assigned an overall corporate credit rating of "Aa2" by Moody's and "AA" by S&P.

SP is wholly-owned by Temasek Holdings (Private) Limited ("Temasek"), an investment company headquartered in Singapore with a diversified investment portfolio.

The following diagram sets out an overview of the corporate structure of SP Group, showing the key subsidiaries and associates as at the date of this document:



Business Strengths

SP Group believes that the following are its key business strengths that should establish a solid platform for SP Group to execute its business strategy:

- stable and predictable cash flows from the Electricity T&D Business and the Gas T&D Business and related services in Singapore;
- regulatory regime with incentives for efficiency gains;
- sole electricity and gas transmission and distribution networks in Singapore;
- reliable networks, facilities and technical performance;

- an experienced management team;
- international experience with extensive track records;
- robust credit and financial profile; and
- robust equipment, facilities and technologies used.

Strategy

SP Group's principal strategic objectives are to sustain earnings and to continue the improvement in its operational efficiencies. Building on its business strengths, SP Group has developed the following principal plans and strategies to achieve these objectives:

- proactive regulatory management of the Electricity T&D Business and the Gas T&D Business to encourage the adoption of practical policies and an economically robust regulatory framework;
- pursue operational efficiencies in the use of its regulated asset base;
- maintain high network reliability and quality service;
- minimize financial risk through prudent financial management;
- embrace new technologies and innovations to stay ahead of potential technological disruptions to the industries in which SP Group operates and forge partnerships with complementary industry players; and
- explore opportunities in core and adjacent business areas.

The Issuer was incorporated with limited liability under the laws of Singapore on March 27, 2018 and was assigned company registration number 201810357N. SP was incorporated with limited liability under the laws of Singapore on September 15, 1994 and was assigned company registration number 199406577N. The registered offices of the Issuer and SP are located at 2 Kallang Sector, Singapore 349277, +65 6916 8888.

SUMMARY OF THE PROGRAM

The following general summary does not purport to be complete and is qualified in its entirety by the more detailed information provided elsewhere in this Offering Circular and, in relation to the terms and conditions applicable to a particular series of Notes, by the relevant Pricing Supplement. This summary is derived from and should be read in conjunction with the Indenture and, as the case may be, the Supplemental Trust Deed relating to the Notes. The terms and conditions of the Indenture and, as the case may be, the Supplemental Trust Deed prevail to the extent of any inconsistency with the terms set out in this summary. Words and expressions used in this Summary of the Program and not otherwise defined shall have the meanings ascribed to such words and expressions appearing elsewhere in this Offering Circular.

Issuer	SP Group Treasury Pte. Ltd.
Guarantor	Singapore Power Limited
Description	Global Medium Term Note Program
Arrangers	DBS Bank Ltd., Deutsche Bank AG, Singapore Branch and Morgan Stanley Asia (Singapore) Pte.
Dealers	BNP Paribas, Crédit Agricole Corporate and Investment Bank, Singapore Branch, DBS Bank Ltd., Deutsche Bank AG, Singapore Branch, Mizuho Securities USA LLC, Morgan Stanley Asia (Singapore) Pte., Oversea-Chinese Banking Corporation Limited, The Hongkong and Shanghai Banking Corporation Limited and United Overseas Bank Limited. The Issuer may issue Notes to persons other than Dealers and may terminate the appointment of any Dealer or appoint further Dealers for a particular series of Notes or for the Program.
Trustee and Exchange Agent	The Bank of New York Mellon
Issuing and Paying Agent (DTC)	The Bank of New York Mellon
Issuing and Paying Agent (Euroclear / Clearstream)	The Bank of New York Mellon, London Branch
Issuing and Paying Agent (CDP)	The Bank of New York Mellon, Singapore Branch
Note Registrar and Transfer Agent (DTC)	The Bank of New York Mellon
Note Registrar and Transfer Agent (Euroclear / Clearstream)	The Bank of New York Mellon SA/NV, Luxembourg Branch
Size	The maximum aggregate principal amount (or, in the case of Notes issued at a discount from the principal amount or Indexed Notes, the aggregate initial offering price, or in the case of Notes that may be paid in two or more installments, the aggregate initial offering price) of Notes outstanding at any time shall be S$10,000,000,000 (or the equivalent amount in another currency calculated on the date the Issuer agreed to issue the relevant Notes or in accordance with the applicable Pricing Supplement), which amount may be increased pursuant to the Program Agreement.

Distributions.....	The Notes are being offered on a continuous basis by the Issuer through the Dealers. The Issuer may also sell Notes to the Dealers acting as principals for resale to investors or other purchasers and may also sell Notes directly on its own behalf. Notes may be distributed on a syndicated or non-syndicated basis. See "Plan of Distribution".
Currencies	Singapore dollars and, subject to compliance with all relevant laws, regulations and directives, such other currencies as may be agreed between the Issuer and the relevant Dealers and specified in the applicable Pricing Supplement (each a "Specified Currency"). Each issue of Notes denominated in a currency in respect of which particular laws, guidelines, regulations, restrictions or reporting requirements apply will only be issued in circumstances which comply with such laws, guidelines, regulations, restrictions or reporting requirements. See "Plan of Distribution".
Series.....	Notes will be issued in series, with all Notes in a series having the same maturity date and terms otherwise identical (except in relation to issue dates, interest commencement dates, issue prices and related matters). The Notes of each series will be interchangeable with all other Notes of that series.
Maturities	Unless otherwise specified in the applicable Pricing Supplement, each Note will mature on a date three months or more from its date of original issuance, as selected by the relevant Dealer and agreed to by the Issuer and subject to such other minimum or maximum maturities as may be allowed or required from time to time by the relevant central bank (or equivalent body) or any laws or regulations applicable to the Issuer or the Guarantor or the relevant Specified Currency. Any Notes in respect of which the issue proceeds are received by the Issuer in the United Kingdom and which have a maturity of less than one year must have a minimum redemption value of £100,000 (or its equivalent in other currencies) and be issued only to persons (i) whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of their businesses or (ii) who it is reasonable to expect will acquire, hold, manage or dispose of investments (as principal or agent) for the purposes of their businesses where the issue of Notes would otherwise constitute a contravention of Section 19 of the FSMA by the Issuer.
Amortization	If specified in the applicable Pricing Supplement, the Notes will be redeemed in the Amortization Amounts and on the Amortization Dates set forth in the applicable Pricing Supplement.
Issue Price.....	Notes may be issued at an issue price which is at par or at a discount to, or at a premium over, par, and on a fully-paid or partly-paid basis.
Forms of the Notes	Notes may be issued in bearer or in registered form, as specified in the applicable Pricing Supplement. Bearer Notes will not be exchangeable for Registered Notes, and Registered Notes will not be exchangeable for Bearer Notes.

Each series of Bearer Notes will initially be represented by a Temporary Global Note or a Permanent Global Note which, in each case, will be deposited on the Issue Date with CDP, subject to any restrictions or conditions which may be applicable (as specified in the relevant Pricing Supplement), or a common depositary for Euroclear, Clearstream or any other agreed clearance system compatible with Euroclear and Clearstream. Interests in a Temporary Global Note will be exchangeable, upon request as described therein, for interests in either a Permanent Global Note or Definitive Bearer Notes (as indicated in the applicable Pricing Supplement and subject, in the case of Definitive Bearer Notes, to such notice period as is specified in the applicable Pricing Supplement) upon certification of non-U.S. beneficial ownership as required by United States Treasury regulations ("U.S. Treasury Regulations"). A Permanent Global Note will be exchangeable, unless otherwise specified in the applicable Pricing Supplement, only in the limited circumstances described therein, in whole but not in part for Definitive Bearer Notes upon written notice to the Trustee. Any interest in a Temporary Global Note or a Permanent Global Note will be transferable only in accordance with the rules and procedures for the time being of CDP, Euroclear, Clearstream and/or any other agreed clearance system, as appropriate.

Bearer Notes that are issued in compliance with rules in substantially the same form as U.S. Treasury Regulations §1.163-5(c)(2)(i)(D) for purposes of Section 4701 of the Internal Revenue Code ("TEFRA D") must initially be represented by a Temporary Global Note.

Each series of Registered Notes that are sold outside the United States to non-U.S. persons in reliance on Regulation S will, unless otherwise specified in the applicable Pricing Supplement, be represented by a Regulation S Global Note, which will be deposited on or about its Issue Date with CDP, subject to any restrictions or conditions which may be applicable (as specified in the relevant Pricing Supplement), or a common depositary for, and registered in the name of a nominee, of Euroclear and Clearstream, or a custodian for, and registered in the name of a nominee of, DTC. With respect to all offers or sales by a Dealer of an unsold allotment or subscription and in any case prior to the expiry of the Distribution Compliance Period, beneficial interests in a Regulation S Global Note of such series may be held only through Clearstream, Euroclear, CDP or DTC. Regulation S Global Notes will be exchangeable for Definitive Registered Notes only in the limited circumstances more fully described herein.

Any series of Registered Notes sold in private transactions to QIBs and subject to the transfer restrictions described in "Notice to Purchasers and Holders of Registered Global Notes and Transfer Restrictions" will, unless otherwise specified in the applicable Pricing Supplement, be represented by a Restricted Global Note, which will be deposited on or about its Issue Date with a custodian for, and registered in the name of a nominee of, DTC. Persons holding beneficial interests in Registered Global Notes will be entitled or required, as the case may be, under the circumstances described in the Indenture, to receive physical delivery of Definitive Registered Notes.

	Notes initially offered and sold in the United States to institutional accredited investors pursuant to Section 4(a)(2) of the Securities Act or in a transaction otherwise exempt from registration under the Securities Act and subject to the transfer restrictions described in "Notice to Purchasers and Holders of Registered Global Notes and Transfer Restrictions" will be issued only in definitive registered form and will not be represented by a Global Note. The Notes have been accepted for clearing and settlement through the facilities of DTC and/or Euroclear and Clearstream, as appropriate. In addition, application may be made to have the Notes of any series accepted for clearing and settlement through CDP. See "Annex B — Global Clearance and Settlement".
Interest Rates.....	Interest bearing Notes may be issued either as Fixed Rate Notes, Floating Rate Notes or Variable Rate Notes. Interest on Floating Rate Notes will be determined with reference to one or more of the Commercial Paper Rate, the Prime Rate, the CD Rate, the Federal Funds Rate, EURIBOR, LIBOR, SIBOR, the Swap Rate, the Treasury Rate, the CMT Rate or another interest rate basis, each as adjusted by the Spread and/or Spread Multiplier, if any, as set forth in the applicable Pricing Supplement. Any Floating Rate Note may also have a maximum and/or minimum interest rate limitation. See "Description of the Notes".
Withholding Tax.....	All payments in respect of the Notes and payments under the Guarantee denominated in currencies other than Singapore dollars will be payable by the Issuer and the Guarantor without withholding or deductions for, or on account of, taxes, except as otherwise required by law. If the Issuer or the Guarantor is required by Singapore or any other relevant taxing jurisdiction to deduct or withhold any such taxes, the Issuer or the Guarantor (as applicable) will, subject to certain exceptions, be required to pay such additional amounts as necessary to enable holders of Notes denominated in currencies other than Singapore dollars to receive, after such deductions or withholding, the amounts they would have received in the absence of such withholding or deductions. The Issuer and the Guarantor are not required to pay such additional amounts to holders of Singapore dollar denominated Notes. See "Description of the Notes — Payments of Additional Amounts". In making an investment decision, investors are strongly recommended to consult their own professional advisors in respect of the tax implications of holding Notes. See "Certain Tax Considerations".
Denominations	Notes will be issued in the denominations indicated in the applicable Pricing Supplement (the "Specified Denomination(s)"), except that the minimum denomination of each Note will be such as may be allowed or required from time to time by the relevant central bank (or equivalent body) or any laws or regulations applicable to the relevant Specified Currency.

	Noted in registered form sold pursuant to Rule 144A shall be issued in denominations of U.S.$200,000 (or its equivalent in any other currency) and higher integral multiples of U.S.$1,000 (or its equivalent as aforesaid) or the higher denomination or denominations specified in the applicable Pricing Supplement. Definitive Registered Notes sold in the United States to institutional accredited investors pursuant to Section 4(a)(2) of the Securities Act or in a transaction otherwise exempt from registration under the Securities Act shall be issued in minimum denominations of U.S.$250,000 (or its equivalent in any other currency) and higher integral multiples of U.S.$1,000 (or its equivalent as aforesaid) or the higher denomination or denominations specified in the applicable Pricing Supplement. Notes which are admitted to trading on a regulated market within the European Economic Area or offered to the public in a Member State of the European Economic Area in circumstances which would require the publication of a prospectus under the Prospectus Directive, shall be issued in a minimum denomination of €100,000 (or its equivalent in any other currency as of the date of issue of the Notes). Notes denominated in Singapore dollars will have a minimum denomination of S$200,000. Notes (including Notes denominated in sterling) which have a maturity of less than one year and in respect of which the issue proceeds are to be accepted by the Issuer in the United Kingdom or whose issue otherwise constitutes a contravention of Section 19 of the FSMA will have a minimum denomination of £100,000 (or its equivalent in other currencies).
Negative Pledge	For so long as any series of Notes is outstanding, the Issuer, the Guarantor and its Principal Subsidiaries (as defined in "Description of the Notes — Negative Pledge") are not allowed, save in limited circumstances, to create or permit to exist any liens on its properties or assets to secure certain types of indebtedness, as described in "Description of the Notes — Negative Pledge".
Change in Obligor.....	Each of the Issuer and the Guarantor is permitted to consolidate with or merge or amalgamate into, in each case, where the Issuer or the Guarantor, as the case may be, is not the surviving or resulting entity, or convey, transfer or sell, assign, or lease, in one transaction or a series of transactions, directly or indirectly, all or substantially all of its assets to, or declare itself a trustee of all or substantially all of its assets for, any Person, so long as the conditions set forth in "Description of the Notes — Consolidation, Merger and Sale of Assets" are satisfied. The approval from the Noteholders is not required if the Issuer or the Guarantor (as the case may be) satisfies such conditions.
Cross Default	The terms of the Notes will contain cross-default provision to other indebtedness of the Issuer, the Guarantor and its Principal Subsidiaries.
Events of Default	The events of default applicable to the Notes are set out in "Description of the Notes — Events of Default".

Redemption	Unless previously redeemed or purchased and called or unless such Note is stated in the relevant Pricing Supplement as having no fixed maturity date, the Notes will be redeemed on their maturity date at the redemption amount specified in the relevant Pricing Supplement (the "Redemption Amount"). The Notes denominated in currencies other than Singapore dollars may also be redeemed at the option of the Issuer for certain taxation reasons set forth in "Description of the Notes — Optional Tax Redemption". With the exception of Variable Rate Notes that are governed by Singapore law, any Notes may, unless otherwise specified in the relevant Pricing Supplement, be redeemed at the option of the Issuer in whole or in part at an amount equal to the greater of (i) their Redemption Price and (ii) the Make Whole Amount (which is the amount determined by discounting the principal amount of the Notes plus all required remaining scheduled interest payments due on such Notes at a rate equal to (a) the yield of United States Treasury Notes of the same maturity (as defined in "Description of the Notes — Optional Redemption") plus (b) a spread specified in the applicable Pricing Supplement), in each case together with accrued but unpaid interest to (but excluding) the date of redemption. With respect to Variable Rate Notes that are governed by Singapore law, unless otherwise provided in the Pricing Supplement, the Issuer shall have the option to purchase all or any of the Variable Rate Notes at their Redemption Price on any date on which interest is due to be paid on such Notes and the Holders shall be bound to sell such Notes to the Issuer accordingly. To exercise such option, the Issuer shall give irrevocable notice to the Holders of such Notes within the Issuer's Purchase Option Period specified in the Pricing Supplement. Unless permitted by then current laws and regulations, Notes (including Notes denominated in sterling) which have a maturity of less than one year and in respect of which the issue proceeds are to be accepted by the Issuer in the United Kingdom or whose issue otherwise constitutes a contravention of Section 19 of the FSMA must have a minimum redemption amount of £100,000 (or its equivalent in other currencies).
Status of the Notes	The Notes will constitute direct, unsecured and unsubordinated obligations of the Issuer which will rank *pari passu* among themselves, and at least *pari passu* with all other unsecured and unsubordinated obligations of the Issuer, other than with respect to obligations preferred by statute or operation of law.
Guarantee	The Guarantor will fully, unconditionally and irrevocably guarantee to each Noteholder the due payment of all amounts owing from time to time under the Notes. Unless otherwise stated in the relevant Pricing Supplement, the Guarantee of the Notes will constitute a direct, unconditional, unsecured and unsubordinated obligation of the Guarantor and will rank at least *pari passu* with all existing and future unsecured and unsubordinated obligations of the Guarantor (other than with respect to obligations which may be preferred by law or rank senior by operation of law) and senior to all existing and future subordinated obligations of the Guarantor.

Listing of the Notes	Application has been made to the SGX-ST for permission to deal in and quotation of any Notes which are agreed at the time of issue thereof to be so listed on the SGX-ST. Such permission will be granted when such Notes have been admitted to the Official List of the SGX-ST. There is no assurance that the application to the SGX-ST for the listing of a particular series of Notes will be approved. If the application to the SGX-ST to list a particular series of Notes is approved, such Notes listed on the SGX-ST will be traded on the SGX-ST in a minimum board lot size of at least S$200,000 (or its equivalent in other currencies). In relation to the Notes that are listed on the SGX-ST, the Issuer is required by the listing manual of the SGX-ST to immediately disclose to the SGX-ST via SGXNET any information which may have a material effect on the price or value of the Notes or on an investor's decision whether to trade in such Notes. Unlisted series of Notes may also be issued pursuant to the Program. The Notes may also be listed on such other or further stock exchange(s) as may be agreed between the Issuer and the relevant Dealer in relation to each series of Notes. The Pricing Supplement relating to each series of Notes will state whether or not the Notes of such series will be listed on any stock exchange(s) and, if so, on which stock exchange(s) the Notes are to be listed. The Company intends to list Notes sold pursuant to Rule 144A on the SGX-ST.
Governing Law	As specified in the applicable Pricing Supplement, Notes will be governed by, and construed in accordance with, either the laws of the State of New York or the laws of Singapore. The Indenture will be governed by the laws of the State of New York (to the extent to which it relates to Notes governed by the laws of the State of New York) and the Supplemental Trust Deed will be governed by the laws of Singapore (to the extent to which it relates to Notes governed by the laws of Singapore).
Submission to Jurisdiction.....	The Issuer and the Guarantor have submitted to the non-exclusive jurisdiction of any New York State or federal court sitting in the City of New York in the Borough of Manhattan for any legal action or proceeding arising out of or relating to the Indenture or Notes governed by the laws of the State of New York.
Selling Restrictions.....	The offer and sale of Notes and the delivery of the Offering Circular is restricted in certain jurisdictions. See "Plan of Distribution" and "Notice to Purchasers and Holders of Registered Global Notes and Transfer Restrictions". Bearer Notes will be issued in compliance with TEFRA D unless (i) the relevant Pricing Supplement states that Bearer Notes are issued in compliance with rules in substantially the same form as U.S. Treasury Regulations §1.163-5(c)(2)(i)(C) for purposes of Section 4701 of the Internal Revenue Code ("TEFRA C") or (ii) Bearer Notes are issued other than in compliance with TEFRA D or TEFRA C but only in circumstances in which the Notes will not constitute "registration

	required obligations" for U.S. federal income tax purposes, which circumstances will be referred to in the relevant Pricing Supplement as a transaction to which the United States Tax Equity and Fiscal Responsibility Act of 1982 ("TEFRA") is not applicable.
Ratings	The Guarantor has been assigned an overall corporate credit rating of "Aa2" by Moody's and "AA" by S&P. Whether or not a rating in relation to any issue of Notes (to the extent any such Notes will be rated) has been issued by a credit rating agency will be disclosed in the relevant Pricing Supplement. Notes issued under the Program may be rated or unrated. Where an issue of Notes is rated, such rating will not necessarily be the same as the rating(s) assigned to the Guarantor. A rating is not a recommendation to buy, sell or hold securities and may be subject to suspension, reduction or withdrawal at any time by the assigning rating agency.

RISK FACTORS

An investment in the Notes involves a degree of risk. Investors should carefully consider all of the information in this Offering Circular, including the risks and uncertainties described below and on page 58 (See "Business of SP Group — Risk Management"), before making an investment in the Notes. The business, financial condition or results of operations of the Issuer, SP and SP Group could be adversely affected by any of these risks. In any such case, these risks could cause investors to lose all or part of their investment.

RISKS RELATED TO SP GROUP'S TRANSMISSION AND DISTRIBUTION BUSINESS IN SINGAPORE AND THE MARKET SUPPORT SERVICES BUSINESS

SP Group operates in a highly regulated environment, which may limit its ability to conduct its transmission and distribution business in Singapore and its Market Support Services Business as it desires

SP Group's transmission and distribution business in Singapore as well as its Market Support Services Business are subject to extensive regulation by an independent regulatory body, the EMA. SP Group is dependent on the retention of the Transmission Licence by SPPA for the conduct of the Electricity Authorised Business, the Gas Transporter Licence by PowerGas for the conduct of the Gas T&D Business, and the Market Support Services Licence by SP Services for the conduct of the Market Support Services Business. There can be no assurance that the EMA will not fundamentally alter SP Group's business environment or affect its business in the future. For example, the EMA has the power to:

- authorize a competing Transmission Licensee to operate other electricity transmission and distribution facilities in Singapore, a competing Gas Transporter Licensee to operate other gas transmission and distribution facilities in Singapore, or a competing MSSL to provide other market support services in Singapore;

- permit certain classes of consumers to bypass SPPA's electricity transmission and distribution network and obtain electricity supplies through direct connections to electricity generation plants or permit certain classes of market participants to take over certain roles of market support services; and

- make changes to the regulatory framework for the energy industry or the code of practices for licensees from time to time.

Should any of these actions be implemented, SP Group's revenues could be reduced and its business and results of operations could be adversely affected. Such actions could also adversely affect SP Group's network, system or manpower utilization rates and result in SP Group possessing overbuilt or underutilized network assets, systems, capacity or manpower.

Electricity consumers are permitted under the present regulatory regime to self-generate electricity for their own needs. Such self-generated electricity, known as "distributed generation" or "renewable generation" (such as solar energy), is not transported through SPPA's transmission and distribution network and does not generate use of system charges for SPPA, other than certain fixed and variable charges related to such consumers remaining connected to SPPA's transmission and distribution network for back-up electricity purposes.

Should sufficiently large numbers of SPPA's present consumers self-generate electricity for their own needs or should sufficiently large numbers of SPPA's consumers bypass its transmission and distribution network by connecting directly to electricity generation plants, there can be no assurance that such distributed generation or network bypass will not deprive SPPA of significant transmission revenues or have a material adverse effect on SP Group's business operations and financial performance.

In addition, failure to comply with all relevant laws and regulations governing SPPA or the Electricity Authorised Business, PowerGas or the Gas T&D Business, or SP Services or the Market Support Services Business, may result in severe financial penalties, administrative proceedings, or legal proceedings against SPPA, PowerGas or SP Services including the revocation or suspension of the Transmission Licence pursuant to the Electricity Act, the Gas Transporter Licence pursuant to the Gas Act, or the Market Support Services Licence pursuant to the Electricity Act.

Each of the Electricity Act and the Gas Act provides for a range of penal sanctions which may be imposed against SPPA, PowerGas or SP Services (as the case may be) if they fail to comply with all of the duties and obligations imposed on them under the applicable legislation. These sanctions include EMA requiring SPPA, PowerGas or SP Services (as the case may be) to (i) provide security on such terms and conditions as the EMA may determine, and (ii) pay financial penalties (of up to the higher of 10.0% of the annual turnover of the Electricity Authorised Business, the Gas T&D Business or the Market Support Services Business (as the case may be), or S$1 million). The Transmission Licence and the Gas Transporter Licence, which otherwise may be terminated by the EMA upon 25 years' notice, and the Market Support Services Licence, which otherwise may be terminated by the EMA upon 10 years' notice, may be revoked earlier in certain circumstances in accordance with the Electricity Act or the Gas Act (as the case may be). For example, the EMA may revoke or suspend the Transmission Licence under the Electricity Act, the Gas Transporter Licence under the Gas Act or the Market Support Services Licence under the Electricity Act if SPPA, PowerGas or SP Services (as the case may be) contravenes or fails to comply with any direction issued by the EMA under the Electricity Act or the Gas Act (as the case may be) or the EMA believes that such revocation or suspension is in the public interest or security of Singapore. The revocation or suspension of the Transmission Licence, the Gas Transporter Licence or the Market Support Services Licence may also constitute an event of default under various material agreements (including agreements with SP Group's customers), resulting in a right of termination arising under such agreements, which may have a material adverse effect on SP Group's business, revenues or results of operations.

Under each of the Electricity Act and the Gas Act, the Minister for Trade and Industry (the "Minister") and the EMA may in certain situations issue orders or directions to, or impose requirements on, SPPA, PowerGas or SP Services (as the case may be) which they have to comply with. This may require SPPA, PowerGas and/or SP Services to incur costs, which may impact SP Group's financial performance. Under each of the Electricity Act and the Gas Act, the Minister may also make a special administration order in relation to SPPA, PowerGas or SP Services (as the case may be), whereby the EMA may directly or indirectly manage the affairs, business and property of SPPA, PowerGas or SP Services (as the case may be). In such event, each of the Transmission Licence, the Gas Transporter Licence and the Market Support Services Licence requires SPPA, PowerGas or SP Services (as the case may be) to allow the EMA such access to or control of their property as required to enable the EMA to meet its obligations under the special administration order.

The EMA is conducting, and may from time to time conduct, consultations on matters which could result in regulatory changes that may affect SP Group's business, revenues and results of operations. No assurance can be given that such regulatory changes (if and when they come into effect) will not have a material adverse effect on SP Group's business, revenues or results of operations.

SP Group's business performance may be impacted by the regulator's revenue and price control determination. SP Group is unable to unilaterally determine the future revenues and prices for its services, which could cause SP Group to be unprofitable if its costs increase without its regulator authorizing a corresponding increase in SP Group's charges for the use of its electricity and gas transmission and distribution networks and the provision of market support services

A significant portion of SP Group's revenues is primarily derived from network charges for transmitting and distributing electricity across SPPA's electricity transmission and distribution network, and for transmitting and distributing gas across PowerGas' gas transmission and distribution networks, as well as from charges for the provision of market support services. These charges for use of the relevant networks and for the provision of market support services are subject to revenue and price controls established by the EMA in consultation with SP Group.

The revenue and price controls for the Electricity T&D Business, the Gas T&D Business and the Market Support Services Business are applicable for each regulatory period (which is currently set at five years) and are based on the weighted average cost of capital and the projected operating and capital expenditures in respect of the Electricity T&D Business, the Gas T&D Business and the Market Support Services Business during the current regulatory period. SP Group's ability to generate revenue from use of its electricity and gas transmission and distribution networks and the provision of market support services is governed by and subject to EMA's determination of these revenue and price controls, which have significant impact on SP Group's financial performance. See "Business of SP Group — Transmission and Distribution Business in Singapore — Electricity T&D Business — Tariff Regulatory Framework for the Electricity T&D Business", "Business of SP Group — Transmission and Distribution Business in Singapore — Gas T&D Business — Tariff Regulatory Framework for the Gas T&D Business" and "Business of SP Group — Market Support Services Business — Market Support Services Business Framework — Regulated Business".

If SP Group's actual operating and capital expenditures exceed the level projected in the setting of the regulatory price cap or its price controls are set too low, it may in certain instances be able to seek reimbursement (through a tariff adjustment) of all or a portion of such excess expenditure only if such expenditure is determined to be necessary, prudently incurred and to fall within the definition of exogenous cost (as defined in the relevant licence conditions). SP Group's financial performance in the current regulatory period would be adversely affected if it is not able to seek reimbursement of such expenditures.

The EMA is conducting, and may from time to time conduct, consultations on matters which could result in regulatory changes that may affect SP Group's business, revenues and results of operations. No assurance can be given that such regulatory changes (if and when they come into effect) will not have a material adverse effect on SP Group's business, revenues or results of operations.

SP Group's revenues are highly dependent on the strength of the Singapore economy and could be adversely affected if the Singapore economy weakens

SP Group is highly dependent on the Singapore economy. 100% of SP Group's revenue from the Electricity T&D Business and the Gas T&D Business was generated within Singapore. Singapore has an export-oriented economy and is a regional business, industrial, manufacturing and financial center. Factors that may adversely affect the Singapore economy include:

- scarcity of credit or other financing, resulting in lower demand for products and services provided by companies in the region;
- devaluation of the Singapore dollar or other currencies in the region;
- a prolonged period of inflation or increase in regional interest rates;
- relative increases or decreases in business, manufacturing or industrial activity in Singapore or in the region;
- changes in taxation;
- political instability, terrorism or military conflict in countries in the region or globally;
- prevailing regional or global economic conditions; and
- other regulatory or political or economic developments in or affecting Singapore.

Therefore, any economic recession or other deterioration in Singapore's economy, or decline in business, industrial, manufacturing or financial activity in Singapore, could have a material adverse impact SP Group's operations.

Competition from alternative fuel sources and changes in technology may have an adverse effect on SP Group's business and financial position

Liquefied Petroleum Gas ("LPG") is the main competitor of town gas in the domestic segment. LPG is not transported through SP Group's transmission and distribution network and does not generate tariffs for SP Group.

Currently, about 95% of electricity in Singapore is generated using natural gas. Electricity generation can be augmented or replaced by other fuel sources including renewable energy sources such as solar. If electricity generation in Singapore is replaced by alternative sources as its main energy source in the foreseeable future, SP Group's revenue could be reduced and SP Group's business and results of operations could be adversely affected by the effect of energy substitution.

Further, alternative end-user generation made possible through current or future advances in technology, such as solar photovoltaic, fuel cells and microturbines, could provide alternative sources of electricity and permit customers to generate electricity for their own use. As these and other technologies are created, developed and improved, the volume of electricity usage through SPPA's transmission and distribution network by customers could decline, which could have an adverse effect on SP Group's business and financial position.

This would adversely affect SP Group's network utilization rate resulting in overbuilt, or "stranded" network assets and capacity.

SP Group's business performance may be adversely affected by various business challenges typical of companies in the same industry

SP Group faces a number of operating risks applicable to electricity transmission and distribution companies and gas transmission and distribution companies, including:

- service disruptions and variations in power or gas quality in SP Group's networks, which may result in revenue loss and potential liabilities to third parties and penalties by the EMA;
- fluctuations or a decline in aggregate consumer demand for electricity or aggregate end user demand for gas, which could result in decreased revenues;
- the inability of Generation Licensees to generate electricity for transmission and distribution by SP Group to its consumers, which would affect the availability of electricity supply through its network;
- the inability of Gas Shipper Licensees to provide gas for transmission and distribution by SP Group, which would affect the availability of gas supply through its network;
- information technology system failure, which could result in loss of critical data;
- undetermined environmental costs and liabilities arising from SP Group's operations and its network infrastructure, which could increase costs of SP Group;
- injuries to SP Group's employees or contractors or third parties, which may result in fines, claims, higher insurance costs for SP Group or denial of coverage; and
- SP Group's failure to successfully negotiate and enter into future collective bargaining agreements, which may result in work stoppages.

Based on an average taken from FY16 to FY18, 89.6% of SP Group's annual EBITDA was derived from its transmission and distribution business in Singapore. Therefore, SP Group's results of operations may also be exposed to a greater degree of fluctuation in comparison to companies that have more diversified operations.

SP Group's facilities and technology systems could be adversely affected by events over which it has no control

SP Group's facilities and technology systems may be exposed to the effects of equipment failure or malfunction, natural disasters, cyber-attacks and, potentially, catastrophic events, such as a major accident, terrorist attack or incident at an electricity generation plant, gas pipeline or station of a third-party to which SP Group's transmission and distribution networks are connected, or in respect of information technology systems belonging to the Market Company and Retail Licensees, to which SP Group's IT systems are connected to provide market settlement data. Although SP Group's facilities are operated and maintained to withstand certain of these occurrences and SP Group seeks to ensure the security of its facilities by adopting security measures such as hardening the security infrastructure, security patrols, regular drills and contingency preparedness exercises and security screening, such measures may not be sufficient to prevent damage to SP Group's facilities and technology systems and/or its transmission and distribution network assets in certain cases. This risk is heightened by the geographical concentration of a significant portion of SP Group's assets in Singapore.

For example, terrorist attacks or major accidents could result in damage to SP Group's transmission and distribution network assets, adversely affecting SP Group's ability to provide electricity or gas transmission and distribution services, or could result in damage to an electricity generation plant, gas pipeline or station of a third-party to which SP Group's transmission and distribution networks are connected, adversely affecting the supply of electricity or gas and SP Group's ability to transmit and distribute electricity or gas to consumers. Any repairs necessary to correct any resulting damage to SP Group's network assets could be costly and time-consuming, and may result in substantial lost revenues during the period of such repairs.

Further, as SP Group's business and operations rely heavily on information technology, SP Group is exposed to the risks of cybersecurity threats, data privacy breaches as well as other network security risks. The scale and level of sophistication of cybersecurity threats and attacks have increased especially in recent times. SP Group is exposed to the risks of cyber-attacks which could cause disruptions to its networks and services. SP Group is also exposed to the risk of cyber thefts of sensitive and/or confidential information, which may result in litigation from customers and/or regulatory fines and penalties. While SP Group has implemented preventive measures, established appropriate policies and frameworks to ensure information system security and network security, there can be no assurance that such measures, policies and frameworks are sufficient or that SP Group's business, financial condition and results of operations would not be adversely affected by such cyber security threats, data privacy breaches as well as other network security risks.

SP Group is exposed to risk associated with aging assets and failure to replace aging assets at all or in a timely manner could adversely affect SP Group's business

While SP Group endeavors to optimize the useful life of its assets and replace them when the performance of the assets is unsatisfactory, it may not be able to do so at all times and/or may not be able to replace its assets in a timely manner. The failure of the foregoing may result in service disruptions and affect the reliability of SP Group's network and services, thereby having a negative impact on SP Group's business and reputation. SP Group may further be subject to financial penalties imposed by the EMA for such failures. Consequently, SP Group's business and financial condition may be affected.

SP Group is exposed to risk associated with obsolete information technology systems and failure to upgrade its systems in a timely manner could adversely affect SP Group's business

While SP Group endeavors to optimize the useful life of its information technology systems and upgrade or replace them when the performance of the system is unsatisfactory, it may not be able to do so at all times and/or may not be able to replace its assets in a timely manner. This may result in service interruptions, which may have a negative impact on SP Group's business and reputation. SP Group may further be subject to financial penalties imposed by the EMA for such failures. Consequently, SP Group's business and financial condition may be affected.

RISKS RELATED TO SP GROUP'S INVESTMENTS IN AUSTRALIA

SP Group is exposed to political, economic, market, regulatory and legal risks in Australia

SP Group is exposed to political, economic, market, regulatory and legal risks and uncertainties in Australia. Any change in the political environment and the policies of the government which include, but are not limited to, restrictions on foreign investment, repatriation of distributions, requirement for approval by government authorities, changes in laws, regulations and taxation and changes to the way in which those laws and regulations are interpreted and applied by regulators, could adversely affect SP Group's investments in Australia and SP Group's financial condition and results of operations.

SP Group's investments in Australia are subject to extensive regulatory legislation and statutory requirements in Australia, with price controls set by the national energy regulator, the Australian Energy Regulator ("AER") on a five-year regulatory cycle. Any downward revisions in the revenues that SP Group's investee companies are entitled to earn may have an adverse effect on SP Group's financial condition and results of operations.

As the regulatory environment continues to evolve, SP Group's investee companies' operations may be subject to further reviews in areas relating to pricing and revenues earned, costs, safety, compliance and other matters.

SP Group may also be exposed to a variety of legal and regulatory risks relating to its investments in Australia, which if realized may have an adverse effect on SP Group's financial condition. These exposures can include, but are not limited to, commercial claims, contractual claims, customer claims, native title claims, tenure disputes, environmental claims, occupational health and safety claims, employee claims, regulatory disputes and tax disputes.

SP Group may also review its investments in Australia from time to time to optimize SP Group's portfolio allocation.

SP Group derives substantial earnings from its investments in Australia and is exposed to asset valuation risk

SP Group derives substantial earnings from its investments in Australia. These earnings are subject to many variables, including the operating performance, credit rating and distributions from the investments. SP Group may also be exposed to currency fluctuations when earnings are translated into Singapore dollars.

SP Group may seek to influence the operations and performance of its investments in Australia, but ultimately does not have majority control. The Australia entities may have economic or business interests that may not be consistent with the interests of SP Group, which could in turn have an adverse impact on SP Group's financial condition and results of operations. See " — General Risks Related to SP Group's Business and Industry — SP Group is subject to risks inherent in investments in its associates and joint ventures which it does not control*"* for more details regarding such risks.

SP Group annually reviews its investment portfolio to determine if there is any impairment to the value of its investments. The assessment, if unfavorable, could adversely impact the consolidated results of SP Group.

RISKS RELATED TO OTHER BUSINESSES

District Cooling

SP Group's regulated district cooling services business operates within a limited mandated service area in Singapore, resulting in increased customer concentration risk and counterparty credit risks

The service area mandated by the Minister for district cooling services to be provided pursuant to the District Cooling Act covers an area of only approximately 0.4 square km in the Marina Bay Area in Singapore, as compared to the Electricity T&D Business and the Gas T&D Business which operate across the whole of Singapore, or approximately 718 square km. SDC, a wholly-owned subsidiary of SP, is currently the District Cooling Services Licensee in Singapore. However, due to the limited size of the mandated service area, SDC currently has a small customer base.

This limited mandated service area exposes SDC to an increased customer concentration risk. In FY18, revenue from SDC's top five customers accounted for more than 80% of SDC's revenue. SDC's revenue in the district cooling services segment may fluctuate significantly in the event of a change in demand from SDC's major customers.

SDC is also exposed to increased counterparty credit risk due to its concentrated customer base. As a result, SDC's credit standing is directly affected by the credit profile of its customers. SDC's cash flows and financial stability may be adversely affected should its customers default on their payments or curtail their operations in Singapore.

Real Estate

SP Group's construction and ownership of its first real estate development project exposes it to construction related risks and commercial real estate risks

There are construction related risks associated with SP Group's first real estate development project, comprising an underground transmission substation, commercial office tower and SPPA's operational support center that is located along Pasir Panjang Road in Singapore. These construction related risks arise, in particular, from deep excavation due to the proximity to the mass rapid transit line and the waterfront. The occurrence of unforeseen ground conditions during construction may impact the construction timeline and costs. While the development of this project is led by an experienced project management and execution team, there is no assurance that SP Group would be able to satisfactorily deal with the wide range of construction risks which may arise. Delays in completing the project may result in cost overruns and increased financing costs, which may have an adverse effect on SP Group's business or results of operations.

The commercial office and ancillary retail businesses in this project will be subject to commercial real estate risks. This includes macro-economic factors during the development and launch of the commercial real estate. While SP Group has planned the development based on its understanding and outlook regarding the property market and general economic situation, there is a risk that occupancy and rental rates secured may be lower than projected, which may have an adverse impact on SP Group's business or results of operations.

Digital Solutions

SP Group's venture into new digital business opportunities may not be successful

SP Group is looking to capture new digital business opportunities across the electricity value chain, with a vision to empower utilities and its customers to accelerate towards their sustainability goals by creating digital products. These new ventures may require additional capital resources, new expertise and ongoing compliance monitoring with respect to legal and regulatory requirements, and there is no assurance that SP Group will achieve the objectives that it has set out to achieve in relation to these digital businesses.

GENERAL RISKS RELATED TO SP GROUP'S BUSINESS AND INDUSTRY

SP Group has a holding company structure, and it is possible that the Guarantor may not have the financial resources or liquidity to pay amounts under the Guarantee

Most of the Guarantor's assets are shareholdings in its subsidiaries and associated companies (both listed and unlisted). The ability of the Guarantor to continue to satisfy its payment obligations, including obligations under the Guarantee, is therefore subject to the up-streaming of dividends, distributions and other payments received from the Guarantor's subsidiaries and associated companies. Both the timing and ability of certain subsidiaries and associated companies to pay dividends and distributions are limited by applicable laws and subject to the performance of these subsidiaries and associated companies (which could be affected by the risks described herein with respect to SP Group's business) and may be limited by conditions contained in a certain number of their agreements.

As a result of the holding company structure of SP Group, the Guarantee is structurally subordinated to any and all existing and future liabilities and obligations of the Guarantor's subsidiaries and associated companies. Generally claims of creditors, including trade creditors, and claims of preferred shareholders (if any) of any such subsidiaries and associated companies will have priority with respect to the assets and earnings of such subsidiaries and associated companies over the claims of SP and its creditors, including Noteholders seeking to enforce the Guarantee.

SP Group is subject to risks inherent in investments in its associates and joint ventures which it does not control

A significant portion of SP Group's earnings is generated by its associates and joint ventures which are not subsidiaries, and in which SP Group has a significant stake but does not have majority control. The performance of SP Group's associates and joint ventures (and its share of their results) are dependent on various factors, including (without limitation) the general conditions in the economy of Australia, and applicable laws and regulations (including any applicable tariffs), and are subject to risks similar to those which affect SP Group as described herein.

Disagreements may occur between the SP Group, its associates or third party investors in such associates and/or its joint venture partners, as the case may be, regarding the business, strategy and operations of such associates or joint ventures which may not be resolved amicably, or may take time to resolve, or may not result in a positive outcome for SP Group. In addition, SP Group's associates or third party investors in such associates and/or its joint venture partners may:

(i) have economic or business interests or goals that are inconsistent with that of SP Group;

(ii) take actions contrary to SP Group's instructions, requests, policies and/or objectives;

(iii) be unable or unwilling to fulfil their obligations;

(iv) have financial difficulties; or

(v) have disputes with SP Group as to the scope of their responsibilities and obligations.

The occurrence of any of these events may materially and adversely affect the performance of SP Group's associates and/or joint ventures and result in impairment of such investments, and/or may result in SP Group making additional funding or capital contributions (where applicable) to SP Group's associates or joint ventures, which in turn may materially and adversely affect SP Group's financial condition and results of operations.

SP Group's business operations are subject to SP Group's ability to attract and retain skilled professional and technical employees

SP Group's employees are a key part of its business. While SP Group recognizes the importance of human capital to its operations and growth, its future performance depends on its ability to attract and retain high quality personnel with the relevant expertise. If SP Group is unable to attract and retain a sufficient number of personnel with the relevant experience, SP Group's business, revenues and results of operations could be adversely affected.

Occupational health and safety is a key risk area in SP Group's operations

SP Group is subject to legislation concerning health and safety of employees and contractors. SP Group will incur compliance costs and any failure in SP Group's compliance with the health and safety regimes to which it is subject may result in SP Group being subject to fines, damages and criminal or civil sanctions. In addition, actual or alleged violations arising under any health and safety laws may cause interruptions to SP Group's operations and adversely affect SP Group's reputation.

SP Group operates a business with large and uneven capital expenditure and any inability to obtain financing on favorable terms or at all could adversely affect SP Group's business

SP Group may from time to time be required to expand, upgrade and maintain its networks and other assets. SP Group's capital expenditure can be large and uneven while the returns on such capital expenditure may be received over a period of time. In this regard, SP Group may require substantial financing to fund or support such capital expenditure and future growth of its business. SP Group's ability to obtain financing could be affected by economic and market conditions which could adversely affect liquidity, cost of funding and availability of funding sources. There can be no assurance that financing will be made available or, if available, that such financing will be obtained on terms favorable to SP Group. SP Group's business and growth could be adversely affected by insufficient financing or unfavorable financing terms.

Any acquisitions or joint ventures which SP Group engages in may not be successful and may require additional funding which could affect SP Group's level of leverage

SP Group may from time to time engage in selective acquisitions or joint ventures in order to grow its capabilities and/or diversify its revenue streams. Such acquisitions or joint ventures involve risks and uncertainties, including (without limitation) failure to complete acquisitions or joint ventures under commercially acceptable terms, difficulties in managing a larger and growing business and optimizing the allocation of resources and operational efficiency, and failure to effectively integrate various operating functions. In addition, SP Group may require additional financing to fund acquisitions or joint ventures. There can be no assurance that financing will be available or, if available, that such financing will be obtained on terms favorable to SP Group. Such financing would also increase SP Group's level of leverage. Failure to service SP Group's indebtedness could lead to termination of one or more of its financing agreements or trigger cross-default provisions, penalties or acceleration of amounts due under such financing agreements. In any of these events, SP Group's business and financial condition could be materially and adversely affected.

SP Group's business may be adversely affected by health epidemics and other outbreaks of contagious diseases, including avian flu, H1N1 flu, MERS and SARS

SP Group's business could be adversely affected by avian flu, H1N1 flu, MERS, SARS, or other epidemics or outbreaks. An outbreak of contagious diseases could result in a widespread health crisis that could adversely affect the economies and financial markets of Singapore. Additionally, any recurrence of SARS, a highly contagious form of atypical pneumonia, similar to the occurrence in 2003 that affected China, Hong Kong, Taiwan, Singapore, Vietnam and certain other countries and regions, would also have similar adverse effects. A recurrence of an outbreak of SARS, avian influenza or a similar epidemic or adverse economic development could severely disrupt the Singapore economy and undermine investor confidence, thereby materially and adversely affecting SP Group's results of operations or financial position.

Uncertainties in global financial markets and global economic conditions may negatively impact SP Group's access to credit and SP Group's ability to raise capital

The previous global financial crisis which witnessed, among other things, significant reductions in and heightened credit quality standards for available capital and liquidity from banks and other providers of credit, substantial reductions and/or fluctuations in equity and currency values worldwide, and concerns that the worldwide economy may enter into a prolonged recessionary period, may make it difficult for SP Group to raise additional capital or obtain additional credit, when needed, on acceptable terms or at all.

The shares of the Issuer and SP are not listed on any stock exchange and as such the corporate governance and information disclosure requirements that apply to the Issuer and SP may differ significantly from those required of companies whose shares are listed on stock exchanges in Singapore, the United States or other jurisdictions

As the shares of the Issuer and SP are not listed on any stock exchange, the corporate affairs of the Issuer and SP are governed principally by the respective constitutions and internal policies. Some of the protections and safeguards that investors may expect to find in relation to a company whose shares are listed on a stock exchange in Singapore, the United States or other jurisdictions do not apply to the Issuer and SP. For example, each of the Issuer and SP prepares and publishes only annual financial statements, neither the Issuer nor SP is required to regularly rotate its audit firm and neither the Issuer nor SP is required to maintain an independent audit committee. Accordingly, investors should not assume that the corporate governance and information disclosure requirements that apply to the Issuer and SP are equivalent to those that apply to a company whose shares are listed on a stock exchange.

The entities that control SP may have interests that differ from the interests of SP Group

SP is wholly-owned by Temasek, an investment company headquartered in Singapore with a diversified investment portfolio. Temasek's sole beneficial owner is the Minister for Finance, a body corporate constituted under the Minister for Finance (Incorporation) Act, Chapter 183 of Singapore. Temasek owns, controls or holds interests in various other entities that hold licenses to operate in the electricity and gas industry in Singapore and which may have interests that differ from the interests of SP Group. No assurance can be given that the objectives of Temasek will not conflict with SP Group's business goals and objectives or that any such conflict will not have an adverse effect on SP Group's financial condition and results of operations.

SP Group is exposed to counterparty risk

SP Group may enter into transactions which will expose it to the credit of its counterparties and their ability to satisfy the terms of such contracts. For example, SP Group may enter into swap arrangements and derivative transactions or payment and collection arrangements with regulated and non-regulated customers and other industry parties, which expose SP Group to the risk that the counterparty may default on its obligations to make payment or otherwise perform under the relevant contract. SP Group's surplus funds are invested in interest-bearing deposits with financial institutions. In the event a counterparty is declared bankrupt or becomes insolvent, SP Group could experience delays in obtaining its funds or liquidating the position and this could lead to losses. There is also a possibility that ongoing derivative transactions, or payment or collection arrangements may be terminated due, for instance, to bankruptcy, supervening illegality or change in the tax or accounting laws relevant to those transactions or arrangements at the time the agreement was originated.

SP Group's insurance coverage may not be adequate and any uncovered losses could adversely affect its business

The insurance coverage that SP Group maintains may be inadequate to cover all insurable liabilities and losses. While SP Group believes that its insurance policies are appropriate to protect against major operating and other risks, not all risks are insurable. There is no certainty that adequate insurance cover for all potential liabilities and losses will be available in the future on commercially viable terms. Risks which are commercially unviable to cover include, among others, loss or damage to transmission and distribution assets, losses arising from wars or invasions, nuclear radiation or radioactive contamination, and damage directly occasioned through normal wear and tear. If SP Group experiences a loss in the future, the proceeds of the applicable insurance policies, if any, may not be adequate to cover replacement costs, lost revenues, increased expenses or liabilities to third parties.

A downgrade of the Guarantor's credit rating could have a material adverse effect on SP Group and on the price of the Notes

As of the date of this Offering Circular, the Guarantor has been assigned an overall corporate credit rating of "Aa2" by Moody's and "AA" by S&P.

Credit ratings are subject to revision, suspension or withdrawal at any time by the assigning rating agency. Rating agencies may also revise or replace entirely the methodology applied to derive credit ratings. No assurances can be given that a credit rating will remain for any period of time or that a credit rating will not be lowered or withdrawn entirely by the relevant rating agency if in its judgment circumstances in the future so warrant or if a different methodology is applied to derive that credit rating.

Any downgrade could impact SP Group's ability to obtain financing or increase its financing costs and could have an adverse effect on the market price of the Notes.

Movements in interest rates may affect SP Group's cost of servicing borrowings

SP Group finances its activities and operations through a combination of borrowings (which may bear interest at floating or fixed rates) and cash from operations. Changes in interest rates will affect borrowings which bear interest at floating rates. Any increase in interest rates will affect SP Group's cost of servicing these borrowings which may adversely affect SP Group's profit and financial position.

SP Group is exposed to liquidity risk

SP Group also uses credit lines with banks to cover liquidity needs, which is dependent on the willingness of banks to provide credit lines. Structural changes in the banking business may impact the willingness of banks to provide credit lines to SP Group.

In addition to bank credit facilities, SP Group intends to finance its activities and operations from time to time by the issuance of debt, principally in the capital markets. Therefore, SP Group will be dependent on broad access to these capital markets and investors. Changes in demand for debt instruments in capital markets could limit SP Group's ability to fund activities and operations.

RISKS RELATED TO THE NOTES

The Notes and the Guarantee are unsecured obligations, except as may be otherwise expressly stated in the relevant Pricing Supplement, and SP Group's assets may be insufficient to pay amounts due on the Notes and the Guarantee

The Notes and the Guarantee will be unsecured obligations and will rank after secured debt, if any. SP Group may incur other debt, which may be substantial in amount, and which may in certain limited circumstances be secured. See "Description of the Notes — Negative Pledge". Because the Notes and the Guarantee will be unsecured obligations, Noteholders' right of repayment may be compromised in the following situations: (i) the Issuer and/or the Guarantor enters into bankruptcy, liquidation, reorganization or other winding-up; (ii) there is a default in payment under any of SP Group's secured debt; or (iii) there is an acceleration of any of SP Group's secured debt. If any of these events occurs, the secured lenders could foreclose on SP Group's assets in which they have been granted a security interest, in each case to the exclusion of Noteholders, even if an event of default exists under the Indenture or the Supplemental Trust Deed relating to the Notes at such time. As a result, upon the occurrence of any of these events, there may not be sufficient funds to pay amounts due on the Notes and the Guarantee. See "Risk Factors — Risks Related to the Notes — Noteholders' ability under Singapore law to bring proceedings or enforce judgments against certain entities in SP Group is subject to certain restrictions".

The Indenture, the Supplemental Trust Deed and the Notes contain only limited restrictions on the ability of the Issuer, the Guarantor and its Principal Subsidiaries to incur additional debt or take other actions that could negatively impact holders of the Notes

Although the Issuer, the Guarantor and its Principal Subsidiaries (as defined in "Description of the Notes — Negative Pledge") are limited under the negative pledge provisions in the Indenture and the Supplemental Trust Deed in their ability to secure certain types of indebtedness, SP Group entities may engage in a number of activities that could negatively impact holders of Notes, including issuing new debt, repurchasing outstanding securities, selling or otherwise disposing of substantially all of its assets, or paying dividends on its shares of common stock. See "Description of the Notes — Negative Pledge". These or other actions by SP Group entities could adversely affect the Issuer's ability to pay amounts due on the Notes and / or the Guarantor's ability to satisfy its payment obligations under the Guarantee. In addition, the Indenture, the Supplemental Trust Deed and the Notes do not contain any covenants requiring SP Group to achieve or maintain any minimum financial results relating to its financial condition or results of operations or other provisions that afford more than limited protection to holders of the Notes.

SP Group is exposed to risks associated with exchange rate fluctuations and modifications to exchange controls

An investment in any Notes denominated in a Specified Currency may entail foreign exchange-related risks due to, among other factors, possible significant changes in the value of the Specified Currency relative to foreign currencies because of economic, political and other factors over which SP Group has no control. If an investor's financial activities are denominated principally in a currency or currency unit (the "Investor's Currency") other than the Specified Currency, an appreciation in the value of the Investor's Currency relative to the Specified Currency would decrease (1) the Investor's Currency-equivalent yield on the Notes, (2) the Investor's Currency-equivalent value of the principal payable on the Notes and (3) the Investor's Currency-equivalent market value of the Notes. In addition, currency exchange movements may affect the market prices of Notes. Further, governments and monetary authorities may impose exchange controls that could adversely affect an applicable exchange rate. As a result, investors may receive less interest or principal than expected, or no interest or principal.

Investors may not be able to sell or transfer their Notes

The Notes will not be registered under the Securities Act or the securities or blue sky laws of any state of the United States. The Notes are being offered, and may be resold, only:

- outside of the United States to non-U.S. persons within the meaning of and in compliance with Regulation S under the Securities Act;

- within the United States to institutional investors that qualify as "qualified institutional buyers" within the meaning of and in compliance with Rule 144A under the Securities Act; or

- pursuant to another exemption from the registration requirements of the Securities Act.

Consequently, the Notes are subject to restrictions on transfer and resale.

Any Notes to be issued will constitute a new class of securities with no established market or prior trading history. While certain of the Notes issued under the Program, including the Notes sold pursuant to Rule 144A, may be listed on the SGX-ST, there can be no assurance that that a market for such Notes will be available or, if it is available, that it will provide investors with an avenue for liquidity for their investment, nor is there any assurance as to how long such Notes will be listed on the relevant stock exchange or the prices at which they may trade. In particular, the Notes could trade at prices that may be higher or lower than the initial offering price due to many factors, including prevailing interest rates, SP Group's operating results, the market for similar securities and general macroeconomic and market conditions in Singapore.

SP Group has been advised by the Arrangers and certain Dealers that following an issuance of Notes they may make a market in such Notes. However, they are not obligated to do so and any market-making activities with respect to such Notes may be discontinued at any time without notice.

An active secondary market in respect of the Notes may never be established or may be illiquid and this would adversely affect the value at which investors could sell their Notes

Notes may have no established trading market when issued, and one may never develop. If a market does develop, it may not be very liquid. Therefore, investors may not be able to sell their Notes easily or at prices that will provide them with a yield comparable to similar investments that have a developed secondary market. This is particularly the case for Notes that are especially sensitive to interest rate, currency or market risks, are designed for specific investment objectives or strategies or have been structured to meet the investment requirements of limited categories of investors. These types of Notes generally would have a more limited secondary market and more price volatility than conventional debt securities.

The Notes may not be rated and, if rated, their ratings could be lowered

One or more independent credit rating agencies may assign credit ratings to the Notes. A rating is not a recommendation to buy, sell or hold the Notes, and there is no assurance that any rating will apply for any given period of time or that a rating may not be adjusted or withdrawn. A downgrade or potential downgrade in these ratings, the assignment of a new rating that is lower than existing ratings, or a downgrade or potential downgrade in ratings assigned to the Guarantor could adversely affect the trading price and liquidity of the Notes. Neither the Issuer, SP nor any dealer undertakes any obligation to obtain a rating, maintain the ratings once issued or to advise holders of Notes of any change in ratings. A failure to obtain a rating or a negative change in ratings once issued could have an adverse effect on the market price or liquidity of the Notes.

Credit ratings assigned to the Notes may not reflect all the risks associated with an investment in those Notes

Any ratings assigned to the Notes may not reflect the potential impact of all risks related to structure, market, additional factors discussed above, and other factors that may affect the value of the Notes. A credit rating is not a recommendation to buy, sell or hold securities and may be revised, suspended or withdrawn by the rating agency at any time.

Investors may experience difficulties in enforcing civil liabilities under U.S. federal securities laws against the Issuer, SP, and their respective directors and executive officers and certain of the parties named in this Offering Circular

Each of the Issuer and SP is a company incorporated in Singapore and all of the Issuer's and SP's directors and executive officers and certain of the parties named in this Offering Circular reside outside or are incorporated outside the United States. All or a substantial portion of the assets of the Issuer and SP, and all or a substantial portion of the assets of such persons are located outside or are organized outside the United

States. As a result, it may not be possible for investors to enforce against the Issuer, SP or such persons in U.S. courts judgments predicated upon the civil liability provisions of U.S. federal securities laws. In particular, investors should be aware that judgments of United States courts based upon the civil liability provisions of the federal securities laws of the United States may not be enforceable in Singapore courts and there is doubt as to whether Singapore courts will enter judgments in original actions brought in Singapore courts based solely upon the civil liability provisions of the federal securities laws of the United States.

Noteholders' ability under Singapore law to bring proceedings or enforce judgments against certain entities in SP Group is subject to certain restrictions

There are certain restrictions under Singapore law on the rights of third parties to bring certain proceedings against any of the subsidiaries within the SP Group which are Electricity Licensees, Gas Transporter Licensees or District Cooling Services Licensees ("Relevant SP Licensee"), such as SPPA, PowerGas, SP PowerGrid, SP Services or SDC. In particular, no judicial management order under Part VIIIA of the Companies Act, Chapter 50 of Singapore (the "Companies Act") (which relate to the judicial management of companies) may be made in relation to any Relevant SP Licensee. Further, no action may be taken by any person to enforce any security over the property of a Relevant SP Licensee or to execute or enforce a judgment or order of court obtained against a Relevant SP Licensee which holds an electricity licence or a Gas Transporter Licence unless that person has served on the EMA 14 days' notice of his intention to take such action. The EMA must also be made a party to any proceedings under the Companies Act relating to the winding up of a Relevant SP Licensee. A Relevant SP Licensee cannot be wound up voluntarily without the consent of the EMA.

Judgments of U.S. courts based upon the civil liability provisions of the federal securities laws of the United States may not be enforceable in Singapore courts and there is doubt as to whether Singapore courts will enter judgments in original actions brought in Singapore courts based solely upon the civil liability provisions of the federal securities laws of the United States.

Notes may not continue to enjoy tax concessions under Singapore tax laws

The Notes to be issued from time to time under the Program during the period from the date of this Offering Circular to December 31, 2023 are, pursuant to the Income Tax Act, Chapter 134 of Singapore ("ITA") and the MAS Circular FDD Cir 11/2018 entitled "Extension of Tax Concessions for Promoting the Debt Market" issued by MAS on May 31, 2018, intended to be "qualifying debt securities" for the purposes of the ITA subject to the fulfillment of certain conditions more particularly described in the section "Certain Tax Considerations — Singapore Taxation". However, there is no assurance that such Notes will continue to enjoy the tax concessions in connection therewith should the relevant tax laws or MAS circulars be amended or revoked at any time.

The Issuer, the Guarantor and the Noteholders may face certain risks associated with any change in the laws of the Republic of Singapore, the laws of the State of New York or administrative practice after the date of issue of the relevant Notes

The terms and conditions of the Notes set forth in "Description of the Notes" are based on laws of the Republic of Singapore or the laws of the State of New York, as specified in the applicable Pricing Supplement in effect as of the date of issue of the relevant Notes. No assurance can be given as to the impact of any possible judicial decision or change to such laws or administrative practice after the date of issue of the relevant Notes.

Notes may not be a suitable investment for all investors

Each potential investor in any Notes must determine the suitability of that investment in light of its own circumstances. In particular, each potential investor should:

(a) have sufficient knowledge and experience to make a meaningful evaluation of the relevant Notes, the merits and risks of investing in the relevant Notes and the information contained or incorporated by reference in this Offering Circular or any applicable supplement;

(b) have access to, and knowledge of, appropriate analytical tools to evaluate, in the context of its particular financial situation, an investment in the relevant Notes and the impact such investment will have on its overall investment portfolio;

(c) have sufficient financial resources and liquidity to bear all of the risks of an investment in the relevant Notes, including where principal or interest is payable in one or more currencies, or where the currency for principal or interest payments is different from the potential investor's currency;

(d) understand thoroughly the terms of the relevant Notes and be familiar with the behavior of any relevant indices and financial markets; and

(e) be able to evaluate (either alone or with the help of a financial advisor) possible scenarios for economic, interest rate and other factors that may affect its investment and its ability to bear the applicable risks.

Payments on the Notes to certain non-U.S. entities that fail to meet specified requirements may be subject to withholding tax under FATCA

Pursuant to Sections 1471 to 1474 (or any successor provisions or amendments thereof) of the United States Internal Revenue Code of 1986, as amended, or pursuant to any agreements and any official pronouncements with respect thereto or any inter-governmental agreement or legislation or other guidance adopted in connection therewith ("FATCA"), the Issuer (if treated as a financial institution), and other non-U.S. financial institutions through which payments on the Notes are made, may be required to withhold tax on all, or a portion of, payments made after December 31, 2018 (or if later, the date of publication of the final U.S. Treasury regulations defining the term "foreign passthru payment") on any Notes issued or materially modified on or after the date that is six months after final U.S. Treasury Regulations defining the term "foreign passthru payment" are filed with the United States Federal Register. The rules governing FATCA have not yet been fully developed in this regard, and the future application of FATCA to the Issuer and the Notes is uncertain. However, such withholding by the Issuer and other non-U.S. financial institutions through which payments on the Notes are made may be required, among others, where (i) the Issuer or such other non-U.S. financial institution is a foreign financial institution (an "FFI") (as defined in FATCA) that agrees to provide certain information on its account holders to the United States Internal Revenue Service (the "IRS") (making the Issuer or such other non-U.S. financial institution a "participating FFI") and (ii)(a) the payee itself is an FFI but is not a participating FFI or does not provide information sufficient for the relevant participating FFI to determine whether the payee is subject to withholding under FATCA or (b) the payee is not a participating FFI and is not otherwise exempt from FATCA withholding. Singapore has an intergovernmental agreement ("IGA") with the United States to implement FATCA. Guidance regarding compliance with FATCA and the IGA may alter the rules described herein, including the treatment of "foreign passthru payments". Notwithstanding anything herein to the contrary, if an amount of, or in respect of, withholding tax were to be deducted or withheld from interest, principal or other payments on the Notes as a result of FATCA, neither the Issuer nor the Guarantor nor any other person would, pursuant to terms of the Notes, be required to pay any additional amounts as a result of the deduction or withholding of such tax. Investors should consult their tax advisors to determine whether these rules may apply to payments they will receive under the Notes.

The regulation and reform of "benchmarks" may adversely affect the value of Notes linked to or referencing such "benchmarks"

Interest rates and indices which are deemed to be "benchmarks" (including LIBOR and EURIBOR) are the subject of recent guidance and proposals for reform from the EU national and international regulatory bodies. Some of these reforms are already effective whilst others are still to be implemented. These reforms may cause such benchmarks to perform differently than in the past, to disappear entirely, or have other consequences which cannot be predicted. Any such consequence could have a material adverse effect on any Notes linked to or referencing such a "benchmark". *Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds* (the "Benchmark Regulation") was published in the Official Journal of the EU on June 29, 2016 and applies from January 1, 2018. The Benchmark Regulation applies to the provision of benchmarks, the contribution of input data to a benchmark and the use of a

benchmark within the EU. It, among other things: (i) requires benchmark administrators to be authorized or registered (or, if non-EU based, to be subject to an equivalent regime or otherwise recognized or endorsed); and (ii) prevents certain uses by EU supervised entities of "benchmarks" of administrators that are not authorized or registered (or, if non-EU based, not deemed equivalent or recognized or endorsed).

The Benchmark Regulation could have a material impact on any Notes linked to or referencing benchmarks, including LIBOR or EURIBOR, in particular, if the methodology or other terms of the relevant benchmark are changed in order to comply with the requirements of the Benchmark Regulation. Such changes could, among other things, have the effect of reducing, increasing or otherwise affecting the volatility of the published rate or level of the relevant benchmark.

More broadly, any of the national or international reforms, or the general increased regulatory scrutiny of "benchmarks", could increase the costs and risks of administering or otherwise participating in the setting of a "benchmark" and complying with any such regulations or requirements. Such factors may have the following effects on certain "benchmarks" (including LIBOR or EURIBOR): (i) discourage market participants from continuing to administer or contribute to the "benchmark"; (ii) trigger changes in the rules or methodologies used in the "benchmark"; or (iii) lead to the disappearance of the "benchmark".

Any of the above changes or any other consequential changes as a result of national or international reforms or other initiatives or investigations could have a material adverse effect on the value of and return on any Notes linked to or referencing the relevant benchmark. Investors should consult their own independent advisers and make their own assessment about the potential risks imposed by the Benchmark Regulation reforms in making any investment decision with respect to any Notes linked to or referencing the relevant benchmark.

Future discontinuance of LIBOR may adversely affect the value of floating rate notes which reference LIBOR

On July 27, 2017, the Chief Executive of the United Kingdom Financial Conduct Authority, which regulates LIBOR, announced that it does not intend to continue to persuade, or use its powers to compel, panel banks to submit rates for the calculation of LIBOR to the administrator of LIBOR after 2021. The announcement indicates that the continuation of LIBOR on the current basis is not guaranteed after 2021. It is not possible to predict whether, and to what extent, panel banks will continue to provide LIBOR submissions to the administrator of LIBOR going forward. This may cause LIBOR to perform differently than it did in the past and may have other consequences which cannot be predicted.

Investors should be aware that, if LIBOR were discontinued or otherwise unavailable, the rate of interest on floating rate Notes which reference LIBOR will be determined for the relevant period by the fall-back provisions applicable to such Notes. Depending on the manner in which the LIBOR rate is to be determined under the terms of the applicable Notes, this may: (i) if ISDA Determination applies, be reliant upon the provision by reference banks of offered quotations for the LIBOR rate which, depending on market circumstances, may not be available at the relevant time; or (ii) if Screen Rate Determination applies, result in the effective application of a fixed rate based on the rate which applied in the previous period when LIBOR was available. Any of the foregoing could have an adverse effect on the value or liquidity of, and return on, any floating rate Notes which reference LIBOR.

EXCHANGE RATES

The Singapore dollar is the functional currency of SP Group. The following table sets forth, for the periods indicated, certain information with respect to the average, high, low and period end Noon Buying Rate in the City of New York between the Singapore dollar and the U.S. dollar (in Singapore dollars per U.S. dollar) as certified for customs purposes by the Federal Reserve Bank of New York for cable transfers. No representation is made that the Singapore dollar amounts actually represent such U.S. dollar amounts or could have been or could be converted into U.S. dollars at the rate indicated, any particular rate or at all.

Singapore Dollar/U.S. Dollar Noon Buying Rate

	Singapore Dollar/U.S. Dollar Noon Buying Rate			
Financial Year Ended March 31,	**Average[1]**	**High**	**Low**	**Period End**
2014	1.2608	1.2831	1.2274	1.2583
2015	1.2939	1.3910	1.2376	1.3721
2016	1.3857	1.4414	1.3171	1.3462
2017	1.3848	1.4522	1.3366	1.3967
2018	1.3514	1.4112	1.3037	1.3105
Month				
April 2018	1.3160	1.3290	1.3082	1.3249
May 2018	1.3392	1.3468	1.3326	1.3389
June 2018	1.3480	1.3673	1.3320	1.3626
July 2018	1.3630	1.3728	1.3555	1.3604
August 2018	1.3687	1.3804	1.3619	1.3722
September 2018	1.3710	1.3785	1.3645	1.3667

Notes:

(1) The average rate for each financial year is the average of the daily Noon Buying Rates on the last business day of each month during that period. The average rate for each month is the average of the daily Noon Buying Rates over each month.

(2) As at the Latest Practicable Date, the exchange rate between Singapore dollars and U.S. dollars was U.S.$1.00 to S$1.3768.

Fluctuations in the exchange rate between the Singapore dollar and the U.S. dollar will affect the U.S. dollar equivalent of the Singapore dollar price of Notes on the SGX-ST.

Currently, no exchange control restrictions exist in Singapore.

USE OF PROCEEDS

The net proceeds arising from the issue of Notes under the Program (after deduction of underwriting fees, discounts and commissions and other expenses incurred by SP Group associated with the issuance) will be used to finance SP Group's capital and operating expenditures, to finance SP Group's indebtedness and borrowings, to finance or refinance acquisitions and/or investments by any member of the SP Group and for general corporate purposes, unless otherwise disclosed in the relevant Pricing Supplement.

TOTAL DEBT AND EQUITY

The following table sets out the consolidated total debt and equity of SP Group as of March 31, 2018. The information has been extracted from the audited consolidated financial statements of SP Group for FY18. The financial effects of transactions subsequent to March 31, 2018 have not been taken into account.

	As of March 31, 2018
	(S$ million)
Short-term debt	
Debt obligations	532.3
Total short-term debt	**532.3**
Long-term debt	
Debt obligations	4,239.1
Total long-term debt	**4,239.1**
Equity	
Share capital	2,911.9
Reserves	(398.6)
Accumulated profits	7,710.6
Total equity	10,223.9
Total debt and equity	**14,995.3**

SELECTED FINANCIAL AND OTHER DATA

The selected financial data as of and for the years ended March 31, 2016, 2017 and 2018 set forth below have been derived from and should be read in conjunction with the audited consolidated financial statements of SP Group and the related notes thereto which are included elsewhere in this Offering Circular.

The consolidated financial statements of SP Group have been prepared in accordance with SFRS.

Selected Income Statement Data

	For the financial year ended March 31,		
	2016	**2017**	**2018**
		(S$ million)	
Revenue	**3,963.5**	**3,722.0**	**4,067.7**
Purchased power	(2,073.4)	(1,803.6)	(1,972.9)
Net revenue (non-SFRS)[(1)]	**1,890.1**	**1,918.4**	**2,094.8**
Other income	162.6	189.0	185.6
Expenses			
Depreciation of property, plant and equipment	(522.4)	(548.5)	(579.2)
Amortization of intangible assets	(28.6)	(34.4)	(32.1)
Maintenance	(97.4)	(99.0)	(99.2)
Staff costs	(275.8)	(297.6)	(292.0)
Property taxes	(66.6)	(55.3)	(54.5)
Other operating expenses[(2)]	(118.7)	(122.1)	(120.7)
Operating profit	**943.2**	**950.5**	**1,102.7**
Finance income	44.7	65.6	68.5
Finance costs	(142.4)	(102.2)	(123.5)
Share of profit of associates, net of tax	244.5	216.4	177.4
Share of profit/(loss) of joint ventures, net of tax	1.9	1.7	(5.8)
Profit before taxation	1,091.9	1,132.0	1,219.3
Tax expense	(168.4)	(183.2)	(197.0)
Profit for the year, attributable to owner of Singapore Power Limited	**923.5**	**948.8**	**1,022.3**

Notes:

(1) Net revenue (a non-SFRS financial measure) is calculated by subtracting purchased power expense from revenue (a SFRS financial measure). Net revenue (non-SFRS) is presented because SP Group believes that some investors find it to be a useful tool for assessing SP Group's financial performance. Net revenue (non-SFRS) is not determined in accordance with SFRS and should not be considered in isolation or as an alternative to revenue as an indicator of operating performance or as an alternative to cash flow as a measure of liquidity. SP Group's net revenue (non-SFRS) is not comparable to that of other companies that may determine net revenue (non-SFRS) differently.

(2) Other operating expenses exclude purchased power and consists primarily of expenditure relating to rental, agency services, licencing, advertising, administration, consultancy, transportation, insurance, impairment, bad debts, foreign exchange losses and loss on disposals of plant, property and equipment

Selected Balance Sheet Data

	As of March 31,		
	2016	**2017**	**2018**
		(S$ million)	
Non-current assets			
Property, plant and equipment	10,967.8	11,713.6	12,485.6
Intangible assets	133.1	141.6	173.8
Investment property	–	–	712.9[2]
Associates and joint ventures	2,772.9	2,994.7	2,843.8
Other non-current assets[1]	383.0	428.1	498.2
Deferred tax assets	31.9	29.2	21.2
Derivative assets[1]	115.2	106.4	48.8
Available-for-sale financial assets	191.4	165.8	155.6
Total non-current assets	**14,595.3**	**15,579.4**	**16,939.9**
Current assets			
Available-for-sale financial assets	8.9	29.6	–
Inventories	56.3	49.0	44.2
Trade and other receivables[1]	422.7	431.0	526.4
Derivative assets[1]	2.4	2.4	17.0
Cash and cash equivalents	1,630.2	1,677.1	1,634.6
Assets held-for-sale	–	37.6	–
Total current assets	**2,120.5**	**2,226.7**	**2,222.2**
Total assets	**16,715.8**	**17,806.1**	**19,162.1**
Equity			
Share capital	2,911.9	2,911.9	2,911.9
Reserves	(313.8)	(187.4)	(398.6)
Accumulated profits	6,489.5	7,068.3	7,710.6
Total equity, attributable to owner of Singapore Power Limited	**9,087.6**	**9,792.8**	**10,223.9**
Non-current liabilities			
Debt obligations	4,119.1	4,147.5	4,239.1
Derivative liabilities	102.6	92.9	230.7
Deferred tax liabilities	1,239.5	1,284.2	1,334.7
Other non-current liabilities	629.3	704.2	937.5
Total non-current liabilities	**6,090.5**	**6,228.8**	**6,742.0**
Current liabilities			
Debt obligations	82.1	139.7	532.3
Derivative liabilities	0.9	15.3	2.8
Current tax payable	142.2	161.4	172.5
Trade and other payables	1,312.5	1,451.3	1,488.6
Liabilities held-for-sale	–	16.8	–
Total current liabilities	1,537.7	1,784.5	2,196.2
Total liabilities	**7,628.2**	**8,013.3**	**8,938.2**
Total equity and liabilities	**16,715.8**	**17,806.1**	**19,162.1**

Notes:

(1) For purposes of this table, "Derivative assets" have been presented as a separate line item for FY16 to conform to the presentation of "Derivative assets" as a separate line item in the audited financial statements of SP Group for FY17. In the audited financial statements of SP Group for FY16, the amounts for "Derivative assets" are included as part of "Other non-current assets" (for non-current portion) and "Trade and other receivables" (for current portion).

(2) The amount indicated for "Investment property" relates to development of a commercial building for leasing purposes. See "Other Businesses — Real Estate" for more information regarding this development.

Selected Cash Flow Data

	For the financial year ended March 31,		
	2016	2017	2018
	(S$ million)		
Profit for the year	923.5	948.8	1,022.3
Cash generated from operations[1]	1,608.8	1,607.7	1,448.2
Net cash generated from operating activities[1]	1,556.5	1,567.6	1,402.9
Net cash used in investing activities	(1,114.1)	(1,134.3)	(1,600.0)
Net cash (used in)/generated from financing activities	(14.7)	(409.2)	196.6
Net increase/(decrease) in cash and cash equivalents[1]	427.7	24.1	(0.5)
Cash and cash equivalents at beginning of the year	1,203.3	1,630.2	1,677.1
Effect of exchange rate changes on balances held in foreign currencies	(0.8)	22.8	(42.0)
Cash and cash equivalents at end of the year	1,630.2	1,677.1	1,634.6

Note:

(1) Restricted cash balances held by SP Group for the purpose of administering the Gas Network Code were presented as a separate line item in the audited consolidated statement of cash flows of SP Group for FY17, but were included in the line item "others" under "cash flows from operating activities" in the audited consolidated statement of cash flows of SP Group for FY18. For purposes of this table, the line items "cash generated from operations", "net cash generated from operating activities" and "net increase / (decrease) in cash and cash equivalents" for FY17 have been re-presented to reflect the consequences of restricted cash balances coming under "cash flows from operating activities" in order to conform to the presentation in the audited financial statements of SP Group for FY18.

Non-SFRS Financial Measures and Other Financial Data

	For the financial year ended March 31,		
	2016	2017	2018
EBITDA (S$ million)[1]	1,494.2	1,533.4	1,714.0
EBITDA margin (%)[1] [2]	36.2	39.2	40.3
EBITDA[1]/finance costs (x)	10.5	15.0	13.9
Total debt (S$ million)[3]	4,201.2	4,287.2	4,771.4
Coverage ratio (debt service coverage) (x)[4]	2.0	16.0	6.7
Coverage ratio (interest coverage) (x)[5]	11.4	16.0	14.2
Total debt/EBITDA[1] (x)	2.8	2.8	2.8
Total debt/(total debt and equity) (%)	31.6	30.4	31.8
FFO/net debt (%)[6]	58.9	61.2	50.5

Notes:

(1) EBITDA represents profit (A) add (1) finance (income) costs, net, (2) tax expense, (3) depreciation of property, plant and equipment, (4) amortization of intangible assets and (B) less/(add) share of profit/(loss) from associates and joint ventures, net of tax. The following table reconciles SP Group's profit to EBITDA.

	For the financial year ended March 31,		
	2016	2017	2018
		(S$ million)	
Profit	923.5	948.8	1,022.3
Less:			
Share of profit of associates	(244.5)	(216.4)	(177.4)
Share of (profit)/loss of joint ventures	(1.9)	(1.7)	5.8
Add:			
Finance costs, net	97.7	36.6	55.0
Tax expense	168.4	183.2	197.0
Depreciation of property, plant and equipment	522.4	548.5	579.2
Amortization of intangible assets	28.6	34.4	32.1
EBITDA	1,494.2	1,533.4	1,714.0

EBITDA is presented because SP Group believes that some investors find it to be a useful tool for measuring a company's ability to fund capital expenditures or to service debt obligations. EBITDA is not determined in accordance with SFRS and should not be considered in isolation or as an alternative to net profit as an indicator of operating performance or as an alternative to cash flow as a measure of liquidity. EBITDA of SP Group is not comparable to that of other companies that may determine EBITDA differently. In particular, SP Group's computation of EBITDA also adjusts for SP Group's share of profit/(loss) of associates and joint ventures, net of tax (in addition to (1) finance (income) costs, net, (2) tax expense, (3) depreciation of property, plant and equipment and (4) amortization of intangible assets) as SP Group believes excluding the share of profit/(loss) of associates and joint ventures, net of tax, in our presentation of EBITDA facilitates comparisons of the financial performance of SP Group's business segments that are managed and operated by SP Group from period to period.

(2) EBITDA/total revenue (revenue + other income).

(3) Total debt comprises long-term debt (including current position) and short-term bank loans.

(4) (Profit after tax + depreciation + amortization + finance costs)/(finance costs + loan repayment for long term debt including current portion).

(5) (Profit after tax + depreciation + amortization + finance costs)/finance costs.

(6) Funds from operations ("FFO") represents net cash from operating activities add (1) changes in working capital (2) dividends received from associates and joint ventures, and less interest paid.

The following table reconciles SP Group's net cash from operating activities to FFO.

	For the financial year ended March 31,		
	2016	2017	2018
	(S$ million)	(S$ million)	(S$ million)
Net cash from operating activities	1,556.5	1,567.6	1,402.9
Add: Changes in working capital	3.4	18.5	139.8
Less: Interest paid	(108.4)	(116.1)	(123.3)
Add: Dividends received from associates and joint venture	62.5	128.3	163.4
FFO	1,514.0	1,598.3	1,582.8

Net debt represents total debt less cash and cash equivalents.

FFO/net debt is presented because SP Group believes that some investors find it to be a useful tool for measuring a company's ability to service debt obligations. FFO/net debt is not determined in accordance with SFRS and should not be considered in isolation or as an alternative to cash flow as a measure of liquidity. SP Group's FFO/net debt is not comparable to that of other companies that may determine FFO/net debt differently.

Net revenue (non-SFRS) breakdown by business segment

The following table sets out the breakdown of SP Group's net revenue (non-SFRS) by business segments, by amount and as a percentage of SP Group's total net revenue (non-SFRS), for FY16, FY17 and FY18.

	For the financial year ended March 31,					
	2016		2017		2018	
	(S$ million)	(%)	(S$ million)	(%)	(S$ million)	(%)
Net revenue (non-SFRS)[1]						
Transmission and Distribution Business in Singapore	1,672.1	88.5	1,690.5	88.1	1,792.4	85.6
Market Support Services Business	194.3	10.3	206.6	10.8	278.3[2]	13.3
Others	23.7	1.2	21.3	1.1	24.1	1.1
Total	**1,890.1**	**100.0**	**1,918.4**	**100.0**	**2,094.8**	**100.0**

Notes:

(1) Net revenue (a non-SFRS financial measure) is calculated by subtracting purchased power expense from revenue (a SFRS financial measure). Net revenue (non-SFRS) is presented because SP Group believes that some investors find it to be a useful tool for assessing SP Group's financial performance. Net revenue (non-SFRS) is not determined in accordance with SFRS and should not be considered in isolation or as an alternative to revenue as an indicator of operating performance or as an alternative to cash flow as a measure of liquidity. SP Group's net revenue (non-SFRS) is not comparable to that of other companies that may determine net revenue (non-SFRS) differently.

(2) Revenue contributed to FY18 includes S$50.4 million which are amounts pertaining to recognition of allowed regulated revenue for the current regulatory period ended March 31, 2018.

The following table reconciles each business segment's revenue to net revenue (non-SFRS) for the years indicated.

		Transmission and Distribution business in Singapore	Investments in Australia	Market Support Services Business	Others	Total
				(S$ million)		
FY18						
	External revenue[a]	1,193.4	–	2,810.0	64.3	4,067.7
	Less purchased power expense	–	–	(1,955.3)	(17.6)	(1,972.9)
	Inter-segment elimination[b]	599.0	–	(576.4)	(22.6)	–
	Net revenue (non-SFRS)	**1,792.4**	**–**	**278.3**	**24.1**	**2,094.8**
FY17						
	External revenue[a]	1,034.5	–	2,629.3	58.2	3,722.0
	Less purchased power expense	–	–	(1,788.2)	(15.4)	(1,803.6)
	Inter-segment elimination[b]	656.0	–	(634.5)	(21.5)	–
	Net revenue (non-SFRS)	**1,690.5**	**–**	**206.6**	**21.3**	**1,918.4**
FY16						
	External revenue[a]	1,004.7	–	2,895.7	63.1	3,963.5
	Less purchased power expense	–	–	(2,054.5)	(18.9)	(2,073.4)
	Inter-segment elimination[b]	667.4	–	(646.9)	(20.5)	–
	Net revenue (non-SFRS)	**1,672.1**	**–**	**194.3**	**23.7**	**1,890.1**

Notes:

(a) For further details of SP Group's external revenue by business segments, see Note 29 of the audited financial statements of SP Group for the years ended March 31, 2018 and 2016 and Note 28 of the audited financial statements of SP Group for the year ended March 31, 2017, included elsewhere in this Offering Circular.

(b) Inter-segment elimination relates to the use of system charge billed by Electricity T&D Business to Market Support Services Business, as well as sale of electricity and market support services billed by Market Support Services Business to other segments within SP Group. For further details of SP Group's inter-segment revenue by business segments, see Note 29 of the audited financial statements of SP Group for the years ended March 31, 2018 and 2016 and Note 28 of the audited financial statements of SP Group for the year ended March 31, 2017, included elsewhere in this Offering Circular.

EBITDA breakdown by business segment

The following table sets out the breakdown of EBITDA of SP Group by business segments[1], by amount and as a percentage of total EBITDA of SP Group, for FY16, FY17 and FY18.

	For the financial year ended March 31,					
	2016		2017		2018	
	(S$ million)	(%)	(S$ million)	(%)	(S$ million)	(%)
EBITDA(1)						
Transmission and Distribution Business in Singapore	1,350.5	90.4	1,385.8	90.4	1,512.2	88.2
Market Support Services Business	103.6	6.9	104.8	6.8	181.3	10.6
Others	40.1	2.7	42.8	2.8	20.5	1.2
Total	**1,494.2**	**100.0**	**1,533.4**	**100.0**	**1,714.0**	**100.0**

[1] SP Group's investments in SGSPAA and AusNet Services do not contribute to SP Group's revenue, but SP Group receives a share of profit of associates from its investments in SGSPAA and AusNet Services. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Overview of Revenue and Expenses — Share of profit of associates, net of tax" for more details.

Note:

(1) EBITDA represents profit (A) plus (1) finance (income) costs, net, (2) tax expense, (3) depreciation of property, plant and equipment, (4) amortization of intangible assets and (B) less/(add) share of profit/(loss) from associates and joint ventures, net of tax. EBITDA is presented because SP Group believes that some investors find it to be a useful tool for measuring a company's ability to fund capital expenditures or to service debt obligations. EBITDA is not determined in accordance with SFRS and should not be considered in isolation or as an alternative to net profit as an indicator of operating performance or as an alternative to cash flow as a measure of liquidity. EBITDA of SP Group is not comparable to that of other companies that may determine EBITDA differently. In particular, SP Group's computation of EBITDA also adjusts for SP Group's share of profit/(loss) of associates and joint ventures, net of tax (in addition to (1) finance (income) costs, net, (2) tax expense, (3) depreciation of property, plant and equipment and (4) amortization of intangible assets) as SP Group believes excluding the share of profit/(loss) of associates and joint ventures, net of tax, in our presentation of EBITDA facilitates comparisons of the financial performance of SP Group's business segments that are managed and operated by SP Group from period to period.

The following table reconciles SP Group's profit for the year to EBITDA.

		Transmission and Distribution business in Singapore	**Investments in Australia**	**Market Support Services Business**	**Others**	**Total**
				(S$ million)		
FY18						
	Profit	655.1	186.9	135.4	44.9	1,022.3
	Less:					
	Share of profit of associates	–	(177.4)	–	–	(177.4)
	Plus:					
	Share of loss of joint ventures	–	–	–	5.8	5.8
	Finance costs, net	163.3	–	(10.0)	(98.3)	55.0
	Tax expense	139.0	(9.5)	27.2	40.3	197.0
	Depreciation of property, plant and equipment	540.5	–	13.8	24.9	579.2
	Amortization of intangible assets	14.3	–	14.9	2.9	32.1
	EBITDA	**1,512.2**	**–**	**181.3**	**20.5**	**1,714.0**
FY17						
	Profit	587.4	197.4	73.7	90.3	948.8
	Less:					
	Share of profit of associates	–	(216.4)	–	–	(216.4)
	Share of profit of joint venture	–	–	–	(1.7)	(1.7)
	Plus:					
	Finance costs, net	141.4	–	(8.5)	(96.3)	36.6
	Tax expense	124.6	19.0	15.6	24.0	183.2
	Depreciation of property, plant and equipment	516.5	–	8.3	23.7	548.5
	Amortization of intangible assets	15.9	–	15.7	2.8	34.4
	EBITDA	**1,385.8**	**–**	**104.8**	**42.8**	**1,533.4**
FY16						
	Profit	553.0	237.0	73.8	59.7	923.5
	Less:					
	Share of profit of associates	–	(244.5)	–	–	(244.5)
	Share of profit of joint venture	–	–	–	(1.9)	(1.9)
	Plus:					
	Finance costs, net	173.4	–	(8.6)	(67.1)	97.7
	Tax expense	121.0	7.5	16.0	23.9	168.4
	Depreciation of property, plant and equipment	491.5	–	7.6	23.3	522.4
	Amortization of intangible assets	11.6	–	14.8	2.2	28.6
	EBITDA	**1,350.5**	**–**	**103.6**	**40.1**	**1,494.2**

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis is based upon information contained in the audited financial statements of SP Group for the three years ended March 31, 2016, 2017 and 2018, including the notes thereto, appearing elsewhere in this Offering Circular. The following discussion and analysis should be read in conjunction with the consolidated financial statements of SP Group, including the notes thereto. This discussion contains forward-looking statements that reflect SP Group's current views with respect to future events and financial performance. SP Group's actual results may differ materially from those anticipated in these forward-looking statements as a result of factors such as those set forth under "Risk Factors" and elsewhere in this Offering Circular.

The consolidated financial statements of SP Group were prepared in accordance with SFRS, which differs in certain material respects from IFRS and U.S. GAAP.

Overview

SP Group is a leading energy utility company in Asia Pacific, with total assets of S$19.2 billion as of March 31, 2018 and S$1.0 billion of profit attributable to its owner for the financial year ended March 31, 2018.

SP Group owns and operates electricity and gas transmission and distribution businesses and a market support services business in Singapore, and holds an interest in two Australian companies which are engaged in the transmission and distribution of electricity and gas in Australia. SP Group also owns and operates one of the world's largest underground district cooling network that is located in Singapore, and SP Group is also setting up district cooling operations in China. As of March 31, 2018, SP Group's Electricity T&D Business, Gas T&D Business and Market Support Services Business serve more than 1.58 million industrial, commercial and residential customers in Singapore. SP Group's electricity and gas transmission and distribution networks are amongst the most reliable and cost-effective worldwide.

SP Group's core business comprises the following segments:

- **Transmission and distribution business in Singapore**

  SP Group's transmission and distribution business in Singapore is substantially driven by the Electricity T&D Business and also includes the Gas T&D Business. SPPA, a wholly-owned subsidiary of SP, is the sole Transmission Licensee in Singapore, and owns and maintains the electricity transmission and distribution network that delivers power to substantially all electricity consumers in Singapore. PowerGas, a wholly-owned subsidiary of SP, is also the sole Gas Transporter Licensee and gas system operator in Singapore, and owns, operates and maintains the gas transmission and distribution network that delivers both natural gas and town gas to substantially all gas end users in Singapore.

  Profit for the year from this segment accounted for 60%, 62% and 64% of SP Group's total profit for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively. Total assets of this segment accounted for 68%, 67% and 66% of SP Group's total assets for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively.

- **Investments in Australia**

  SP Group holds an interest in two Australian companies, which are engaged in the transmission and distribution of electricity and gas in Australia. SP Group owns a 40% interest in SGSPAA and a 31.1% interest in AusNet Services, a company listed on the ASX.

SP Group seeks to create and optimize risk-adjusted returns of its investments over the long term. SP Group aims to add value to its investee companies through board representations, exercising governance and oversight at the board level and providing inputs on the strategic direction of its investee companies.

SP Group's profit for the year from its investments in Australia accounted for 26%, 21% and 18% of SP Group's total profit for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively. Total assets of this segment accounted for 17%, 17% and 15% of SP Group's total assets for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively.

- **Market Support Services Business**

SP Services, a wholly-owned subsidiary of SP, is the only MSSL in Singapore. SP Services facilitates competition in the retail electricity market by enabling consumers to switch seamlessly between buying electricity from Retail Licensees and at wholesale market prices, and by acting as a Retailer of Last Resort. SP Services also acts as billing agent to certain Retail Licensees and other utility principals. These principals include PUB, Citygas and various refuse vendors, to whom SP Services provides billing, meter reading (where applicable) and other customer services for gas, water and refuse utilities.

SP Group's profit for the year from this segment accounted for 8%, 8% and 13% of SP Group's total profit for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively. Total assets of this segment accounted for 6%, 7% and 7% of SP Group's total assets for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively.

- **Others**

The "Others" segment comprises certain other activities, including (without limitation) investment holding services and the businesses described below.

District Cooling

SDC, a wholly-owned subsidiary of SP, currently provides district cooling services to developments in Singapore and China. In addition to providing district cooling services to developments within the service area designated by the District Cooling (Declaration of Service Area) Notification 2006 under the District Cooling Act, SDC also engages in the production and supply of chilled water for air-conditioning purposes to developments outside of the service area, as well as the production and supply of hot water to the developments and provision of consultancy services on the design, implementation and operation of chiller and HVAC systems globally.

Real Estate

In support of Singapore's national agenda to optimize land use, SP Group has embarked on the optimization of land use through the development of an underground transmission substation and building of commercial property above the underground substation. This real estate development project which comprises SPPA's underground transmission substation and operational support center, and a commercial office tower, is located along Pasir Panjang Road in Singapore. It is planned for completion in end 2025.

Digital Solutions

SP Group aims to capture new digital opportunities across the electricity value chain, with a vision to empower utilities and its customers to accelerate towards their sustainability goals by leveraging on its strong in-house digital capabilities in order to design and develop a digital platform to connect and orchestrate the network assets and energy assets across the electricity value chain as well as to connect customers to the ecosystem. See "Business of SP Group — Digital" for more details.

SP Group's profit for the year from the "Others" segment accounted for 6%, 9% and 5% of SP Group's total profit for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively. Total assets of this segment accounted for 9%, 9% and 12% of SP Group's total assets for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively.

Significant Factors Affecting SP Group's Financial Condition and Results of Operations

A number of general factors affected SP Group's financial performance during the three years ended March 31, 2016, 2017 and 2018 and continue to affect SP Group's financial performance. The principal factors are discussed below.

Revenue and Purchased Power

A significant portion of SP Group's revenue is derived from the sale of electricity by SP Services. SP Services acts as the principal in the sale of electricity to all non-contestable consumers and contestable consumers who purchase electricity through SP Services, whether directly or indirectly. Excluding market support services fees, SP Group sells electricity at a price equal to the cost price at which it purchases such electricity ("purchased power expense"), without any profit margin. Accordingly, SP Group evaluates the financial performance of its business based on SP Group's revenue less purchased power expense, or "net revenue", which is a non-SFRS financial measure. SP Group believes that net revenue (non-SFRS) reflects more meaningfully the financial performance of SP Group's business. Accordingly, an analysis of net revenue (non-SFRS) (calculated by subtracting purchased power expense from revenue) has been included in order to provide an indicative measure of SP Group's financial performance. The net revenue (non-SFRS) derived reflects the revenue earned (allowed revenue) from the provision of market support services to non-contestable and contestable consumers at the EMA-approved rates for market support services. Please see " — Overview of Revenue and Expenses — Sale of electricity, market support and agency services" for further information.

From April 1, 2018, the EMA commenced the soft launch of Open Electricity Market ("OEM") where households and businesses in the Jurong area in Singapore can choose to buy electricity from a Retail Licensee. From the last quarter of 2018, OEM is expected to be extended to the rest of Singapore by 2019, allowing the remaining 1.4 million accounts (mainly households) to choose who they wish to buy electricity from. Those who prefer to buy electricity at the regulated tariff from SP Services can continue to do so. Please see "Industry and Regulation — Electricity Industry in Singapore — Summary of the Restructured Electricity Industry in Singapore — Contestability" for further information regarding the OEM.

The extension of OEM to the rest of Singapore may result in a reduction in SP Group's revenue, offset by a reduction in the amount of Purchased Power, but is not expected to have a significant impact on SP Group's net revenue (non-SFRS).

Prevailing Network Tariffs

SP Group's revenues are primarily derived from network charges for transmitting and distributing electricity and gas across its transmission and distribution networks. These charges for use of SP Group's networks which SP Group may charge its consumers are subject to regulatory approval by the EMA.

SP Group's revenue for the Electricity T&D Business, which is regulated by the EMA, is computed as the value of its regulated asset base for the Electricity T&D Business multiplied by its regulatory WACC for the Electricity T&D Business, to which operating expenses, depreciation and taxes are added. The WACC for the Electricity T&D Business is 5.76% (nominal after tax) under the current five-year regulatory period which commenced on April 1, 2015 and the regulated asset base for the Electricity T&D Business was S$9.2 billion[2].

SP Group's revenue for the Gas T&D Business, which is regulated by the EMA, is computed as the value of the regulated asset base for the Gas T&D Business multiplied by the regulatory WACC for the Gas T&D Business, to which operating expenses, depreciation and taxes are added. The WACC for the Gas T&D Business is 6.0% (nominal after tax) under the current five-year regulatory period which commenced on April 1, 2015 and the regulated asset base for the Gas T&D Business was S$839 million[3].

[2] The regulated asset base used for tariff computation excludes customer contributions.

[3] The regulated asset base used for tariff computation excludes customer contributions.

SP Group's ability to generate revenue from use of its electricity and gas transmission and distribution networks is governed by these price controls, which have significant impact on its financial performance. The EMA is conducting, and may from time to time conduct, consultations on matters, such as the parameters relating to application of SP Group's building block calculation, which could result in regulatory changes that may affect SP Group's business, revenues and results of operations. No assurance can be given that such regulatory changes (if and when they come into effect) will not have a material adverse effect on SP Group's business, revenues or results of operations.

Demand for and Usage of Electricity and Gas by Consumers

The actual volume of electricity and gas transmitted and distributed across SP Group's transmission and distribution networks, in combination with the network charges charged by SP Group, significantly determine the amount of revenues that it can earn from the Electricity T&D Business and the Gas T&D Business. However, the volume of electricity and gas transmitted and distributed over SP Group's networks is essentially dependent on demand by electricity and gas consumers, and SP Group's ability to affect such demand is quite limited. Changes in demand for electricity and gas are driven largely by general factors outside SP Group's control, including the retail price of electricity or gas, increases in energy efficiency, increases in self generation by electricity consumers, cooler weather and changes in the mix of industries in Singapore. Network utilization, and therefore, the revenue which SP Group derives from its networks, varies from period to period in response to these and other factors affecting demand for electricity and gas in Singapore.

Under the regulatory framework for the current five-year regulatory period as well as the previous five-year regulatory period, SP Group absorbs any revenue deviations caused by fluctuations in total volume or amount of electricity and gas transmitted or distributed each year within a +/-2.0% deviation from the original volume and/or revenue forecast for the respective network incorporated into the building block forecast. If the deviation is outside this 2.0% range, the EMA will adjust its price controls within the current regulatory period to compensate for such variance beyond 2.0%. Therefore, SP Group's exposure in a given year to increases or decreases in revenue associated with changes in the aggregate volume or amount of electricity and gas transmitted or distributed through its networks is limited to +/-2.0% deviation from the regulated revenue/ volume forecast. However, in the case where the +/- 2.0% deviation applies to the volume instead of revenue forecast, SP Group is also exposed to the risk of changes in demand mix between particular consumer segments regardless of the total volume deviation from the total volume assumed in the regulatory volume forecast. See " — Overview of Revenue and Expenses — Revenue" and "Business of SP Group — Transmission and Distribution Business in Singapore — Electricity T&D Business — Tariff Regulatory Framework for the Electricity T&D Business" and "Business of SP Group — Transmission and Distribution Business in Singapore — Gas T&D Business — Tariff Regulatory Framework for the Gas T&D Business".

General Economic Conditions in Singapore and Australia

SP Group's financial performance is dependent on general conditions in the economy of Singapore as all of its assets for the Electricity T&D Business and the Gas T&D Business are located in Singapore and 100% of its revenue from the Electricity T&D Business and the Gas T&D Business is generated from business activities in Singapore.

SP Group's financial performance is also dependent on general conditions in the economy of Australia, as SP Group derives substantial earnings from its investments in Australia.

Performance of Associates

The financial performance of associates of SP Group, SGSPAA and AusNet Services, has an impact on SP Group's financial performance, as SP Group derives substantial earnings from its investments in Australia. The financial performance of SGSPAA and AusNet Services are dependent on various factors, including (without limitation) the general conditions in the economy of Australia, and applicable laws and regulations (including any applicable tariffs). SP Group does not have control over the day-to-day operations of SGSPAA and AusNet Services, which are managed by local management.

Capital Expenditure

SP Group's business is capital-intensive. SP Group may be required to expand, upgrade and maintain its networks from time to time. Owing to the regulated nature of SP Group's transmission and distribution business in Singapore, capital expenditure can be large and uneven while the regulated returns on such capital expenditure are received over a period of time. SP Group's capital expenditure (relating to property, plant and equipment, intangible assets and investment property) was S$1,253.8 million, S$1,385.3 million and S$2,141.3 million for FY16, FY17 and FY18, respectively. The major capital expenditure projects over the last three years that had constituted a significant portion of SP Group's capital expenditures are as follows:

- the construction and development of two tunnels (the North-South cable tunnel and East-West cable tunnel) in Singapore, as described in more detail in the section "Business of SP Group — Transmission and Distribution Business in Singapore — Tunnels owned under the SPCIT Trust";

- the development of a commercial building for leasing purposes, as described in more detail in the section "Business of SP Group — Other Businesses — Real Estate";

- the development of the Jurong Island-Pioneer Cable Tunnel to facilitate transmission circuits installation to Jurong Island which commenced in 2013 and is expected to be completed in the second half of 2018;

- the development of one new 400kV substation at West Jurong Island which commenced in 2014 and is expected to be commissioned in second half of 2018;

- the development of an underground 230kV substation and operational support center at Pasir Panjang (as part of the development project located along Pasir Panjang in Singapore, as described under the section "Business of SP Group — Transmission and Distribution Business in Singapore — Electricity T&D Business"); and

- the development of a LNG terminal connection from Tuas South to Senoko which commenced in 2011 and is expected to be completed in 2019.

For expected total capital expenditure for FY19, please see " — Capital Expenditure".

Capital Structure

SP Group aims to strike a balance between optimizing its capital structure and achieving a prudent level of leverage. For FY16, FY17 and FY18, SP Group's total debt/(total debt and equity) ratios were 31.6%, 30.4% and 31.8%, respectively.

Foreign Exchange Fluctuations

The reporting currency for the consolidated financial statements of SP Group is Singapore dollars. SP Group derives substantial earnings from its investments in Australia. SP Group may be exposed to currency fluctuations between Singapore dollars and Australian dollars when earnings from its investments in Australia are translated into Singapore dollars.

Critical Accounting Policies

SP Group has identified the accounting policies below as significant to its business operations and the understanding of its financial presentation, financial condition and results of operations. The preparation of the consolidated financial statements of SP Group requires the making of difficult, complex and subjective judgments in selecting the appropriate estimates and assumptions that affect the amounts reported in such financial statements. By their nature, these judgments are subject to an inherent degree of uncertainty. These judgments are based on SP Group's historical experience, its observance of trends in the industry, information with respect to its consumers, terms of existing contracts, and information available from other outside sources, as appropriate. There can be no assurance that SP Group's judgments will prove correct or that actual results reported in future periods will not differ from its expectations reflected in its accounting treatment of certain items.

The following is not intended to be a comprehensive list of all SP Group's critical accounting policies. For a full description of the use of estimates and judgments and further discussion of SP Group's other critical accounting policies, please see Note 2.4 and Note 3 of the audited financial statements of SP Group, which are included elsewhere in this Offering Circular.

Revenue Recognition

Revenue recognized, from use of system charges and transportation of gas, is estimated based on revenue allowed by the EMA (in accordance with the price regulation framework), taking into consideration the services rendered and volume of electricity, gas or services delivered to consumers.

Sale of electricity

Revenue from the sale of electricity is recognized when electricity is delivered to consumers.

Use of system charges and transportation of gas

The use of system charges and revenue from the transportation of gas are approved by the EMA for a five-year regulatory period in accordance with the price regulation framework. Revenue is recognized when services are rendered and the volume of electricity and gas is delivered to consumers.

Accrued revenue

Revenue accrual estimates are made to account for the unbilled period between the end-user's last billing date and the end of the accounting period. The accrual relies on detailed analysis of customers' historical consumption patterns, which takes into account base usage and sensitivity to consumption growth. The results of this analysis are applied for the number of days over the unbilled period.

Price regulation and licence

SP Group's operations in Singapore are regulated under the Transmission Licence, the Gas Transporter Licence and the Market Support Services Licence issued by the EMA.

Revenue to be earned from the supply and transmission of electricity, transportation of gas and the provision of market support services is regulated based on certain formulae and parameters set out in those licences, relevant acts and codes.

Actual revenue billed may vary from that allowed due to volume variances. This may result in adjustments that may increase or decrease SP Group's network charges and market support services fees in succeeding periods. Amounts to be recovered or refunded are brought to account as adjustments to revenue in the period in which SP Group becomes entitled to the recovery or liable for the refund.

SP Group's capital expenditure may vary from its regulatory plan and is subject to a review by the EMA. The results of the variances in capital expenditure may be translated into price adjustments, if any, in the following reset period.

Deferred income

Deferred income comprises (i) government grants for the purchase of depreciable assets, (ii) contributions made by certain customers towards the cost of capital projects received prior to July 1, 2009, (iii) use of system charges, transportation of gas, sale of electricity and market support services fees and (iv) compensation received to defray operating expenses.

Government grants and customer contributions

Deferred income is recognized on a straight-line basis and taken to profit or loss over the periods necessary to match the depreciation of the assets purchased with the government grants and customers' contributions.

Use of system charges, transportation of gas, sale of electricity and market support services fees

Deferred income arises when billings vary from revenue recognized. Deferred income is recognized in profit or loss over the periods necessary to adjust allowed revenue (in accordance with the price regulation framework or regulatory formulae), to revenue earned based on services rendered. At the end of each regulatory period, after adjusting for amounts to be refunded, any outstanding balance is taken to profit or loss as revenue.

Property, Plant and Equipment

Property, plant and equipment are stated at cost less accumulated depreciation and accumulated impairment losses. Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials and direct labour, any other costs directly attributable to bringing the asset to a working condition for their intended use, and the costs of dismantling and removing the items and restoring the site on which they are located and capitalized borrowing cost. Capitalization of borrowing costs will cease when the asset is ready for its intended use, which is defined by the commencement of revenue earning. Cost may also include transfers from equity of any gain or loss on qualifying cash flow hedges of foreign currency purchases of property, plant and equipment.

Purchased software that is integral to the functionality of the related equipment is capitalized as part of that equipment. When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

The gain or loss on disposal of an item of property, plant and equipment is determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment, and is recognized net within other income/other operating expenses in profit or loss.

The cost of replacing a component of an item of property, plant and equipment is recognized in the carrying amount of the item if it is probable that the future economic benefits embodied within the component will flow to SP Group, and its cost can be measured reliably. The carrying amount of the replaced component is derecognized. The costs of the day-to-day servicing of property, plant and equipment are recognized in profit or loss as incurred.

Depreciation is based on the cost of an asset less its residual value. Significant components of individual assets are assessed and if a component has a useful life that is different from the remainder of that asset, that component is depreciated separately. Depreciation is recognized in profit or loss on a straight-line basis over the estimated useful lives of each component of an item of property, plant and equipment. Leased assets are depreciated over the shorter of the lease term and their useful lives unless it is reasonably certain that SP Group will obtain ownership by the end of the lease term. Freehold land and construction-in-progress are not depreciated.

Assumptions made regarding the useful lives are based on the regulatory environment and technological developments. These assumptions are subject to risk and there is the possibility that changes in circumstances will alter expectations.

Investments in associates

An associate is an entity over which SP Group has the power to participate in the financial and operating policy decisions of the investee but does not have control or joint control of these policies.

Investments in associates are accounted for using the equity method (equity-accounted investees) and are recognized initially at cost. SP Group's investments in equity-accounted investees include goodwill identified on acquisition, net of any accumulated impairment losses.

The consolidated financial statements include SP Group's share of the profits or loss and other comprehensive income of the equity-accounted investees, after adjustments to align the accounting policies of the equity-accounted investees with those of SP Group, from the date that significant influence commences until the date that significant influence ceases.

Impairment reviews in respect of associates are performed at least annually or when there is any indication that the investment in associates may be impaired. More regular reviews are performed if changes in circumstances or the occurrence of events indicate potential impairment. SP Group uses the present value of future cash flows to determine the recoverable amounts of the underlying cash generating units in the associates. In calculating the recoverable amounts, significant management judgement is required in forecasting cash flows of the cash generating units, in estimating the terminal growth values and in selecting an appropriate discount rate.

Financial instruments

Non-derivative financial assets

SP Group initially recognizes loans and receivables and deposits on the date they are originated. All other financial assets (including assets designated at fair value through profit or loss) are recognized initially on the trade date at which SP Group becomes a party to the contractual provisions of the instrument.

SP Group derecognizes a financial asset when the contractual rights to the cash flows from the asset expire or it transfers the rights to receive the contractual cash flows on the financial asset in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred. Any interest in transferred financial assets that is created or retained by SP Group is recognized as a separate asset or liability.

Financial assets and liabilities are offset and the net amount presented in the balance sheet when, and only when, SP Group has a legal right to offset the amounts and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. The rights of offset must not be contingent on a future event and must be enforceable in the event of bankruptcy or insolvency of all the counterparties to the contract.

SP Group classifies non-derivative financial assets into the following categories: financial assets at fair value through profit or loss, held-to-maturity financial assets, loans and receivables and available-for-sale financial assets.

Financial assets at fair value through profit or loss: A financial asset is classified at fair value through profit or loss if it is classified as held for trading or is designated as such upon initial recognition. Financial assets are designated at fair value through profit or loss if SP Group manages such investments and makes purchase and sale decisions based on their fair value in accordance with SP Group's documented risk management or investment strategy. Attributable transaction costs are recognized in profit or loss as incurred. Financial assets at fair value through profit or loss are measured at fair value, and changes therein are recognized in profit or loss.

Loans and receivables: Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market. Such assets are recognized initially at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, loans and receivables are measured at amortized cost using the effective interest method, less any impairment losses.

Cash and cash equivalents: Cash and cash equivalents comprise cash balances, bank deposits and restricted cash.

Non-derivative financial liabilities

SP Group initially recognizes debt securities issued and bank borrowings on the date that they are originated. All other financial liabilities (including liabilities designated at fair value through profit or loss) are recognized initially on the trade date, which is the date that SP Group becomes a party to the contractual provisions of the instrument.

SP Group derecognizes a financial liability when its contractual obligations are discharged, cancelled or expired.

Financial assets and liabilities are offset and the net amount presented in the balance sheet when, and only when, SP Group has a legal right to offset the amounts and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.

SP Group classifies non-derivative financial liabilities into the other financial liabilities category. Such financial liabilities are recognized initially at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, these financial liabilities are measured at amortized cost using the effective interest method.

Ordinary shares

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of ordinary shares are recognized as a deduction from equity, net of any tax effects.

Derivative financial instruments, including hedge accounting

SP Group holds derivative financial instruments to hedge its foreign currency and interest rate risk exposures. Embedded derivatives are separated from the host contract and accounted for separately if the economic characteristics and risks of the host contract and the embedded derivative are not closely related. A separate instrument with the same terms as the embedded derivative would meet the definition of a derivative.

On initial designation of the derivative as the hedging instrument, SP Group formally documents the relationship between the hedging instrument and hedged item, including the risk management objectives and strategy in undertaking the hedge transaction and the hedged risk, together with the methods that will be used to assess the effectiveness of the hedging relationship. SP Group makes an assessment, both at the inception of the hedge relationship as well as on an ongoing basis, of whether the hedging instruments are expected to be "highly effective" in offsetting the changes in fair value or cash flows of the respective hedged items attributable to the hedged risk and whether the actual results of each hedge are within a range of 80%-125%. For a cash flow hedge of a forecast transaction, the transaction should be highly probable to occur and should present an exposure to variations in cash flows that could ultimately affect reported profit or loss.

Derivatives are recognized initially at fair value; attributable transaction costs are recognized in profit or loss as incurred. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are accounted for as described below.

Cash flow hedges: When a derivative is designated as the hedging instrument in a hedge of the variability in cash flows attributable to a particular risk associated with a recognized asset or liability or a highly probable forecast transaction that could affect profit or loss, the effective portion of changes in the fair value of the derivative is recognized in other comprehensive income and presented in the hedging reserve in equity. Any ineffective portion of changes in the fair value of the derivative is recognized immediately in profit or loss.

When the hedged item is a non-financial asset, the amount accumulated in equity is included in the carrying amount of the asset when the asset is recognized. In other cases, the amount accumulated in equity is reclassified to profit and loss in the same period that the hedged item affects profit or loss. If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated or exercised, or the designation is revoked, then hedge accounting is discontinued prospectively. If the forecast transaction is no longer expected to occur, then the balance in equity is reclassified to profit or loss.

Fair value hedges: Changes in the fair value of a derivative hedging instrument designated as a fair value hedge are recognized in profit or loss. The hedged item is adjusted to reflect changes in its fair value in respect of the risk being hedged; the gain or loss attributable to the hedged risk is recognized in profit or loss with an adjustment to the carrying amount of the hedged item.

Derivatives that do not qualify for hedge accounting: When a derivative financial instrument is not designated in a hedge relationship that qualifies for hedge accounting, all changes in its fair value are recognized immediately in profit or loss

Taxation

Tax expense comprises current and deferred tax. Current and deferred taxes are recognized in profit or loss except to the extent that it relates to a business combination, or items recognized directly in equity or in other comprehensive income.

SP Group is subject to taxes mainly in Singapore and Australia. Significant judgement is required in determining provision for taxes. There are many transactions and calculations during the ordinary course of business for which the ultimate tax determination is uncertain. SP Group recognizes liabilities for anticipated tax audit issues based on estimates of whether additional taxes will be done. Where the final tax income of those matters is different from the amounts that were initially recorded, such differences will impact the income tax and deferred tax provisions in the period in which such determination is made.

Overview of Revenue and Expenses

Revenue

SP Group's revenue can be broadly organized into the following categories. See "Selected Financial and Other Data – Net revenue (non-SFRS) breakdown by business segment" for further information on SP Group's net revenue (non-SFRS) by business segment.

Singapore transmission and distribution

Revenue from SP Group's transmission and distribution business in Singapore consists of revenue earned from transmission and distribution of electricity and transportation of gas. Revenue comprises use of system charges for the supply and transmission of electricity as well as gas transportation charges. The revenue earned (allowed revenue) is regulated by the EMA in accordance with the applicable legislation as well as the relevant regulatory licences and codes of practice issued by the EMA.

The allowed revenue for both use of system charges and transportation of gas charges are approved by the EMA for a five-year regulatory period, based on certain formulae and parameters as set out in the price regulatory framework, see "Business of SP Group — Transmission and Distribution Businesses in Singapore — Gas T&D Business — Tariff Regulatory Framework for the Gas T&D Business — Performance-Based Regulation and Revenue/ Price Controls set by the EMA".

Sale of electricity, market support and agency services

SP Group earns revenue from providing market support services to the electricity industry. The services include the sale of electricity to non-contestable consumers at the EMA-approved regulated tariff and contestable consumers at wholesale electricity market prices, as well as provision of meter reading, meter data management, billing services and facilitation of consumer transfers and registration. The market support services fees earned from non-contestable and contestable consumers are reflected under "Sale of Electricity" and "Market Support Services revenue". The revenue earned (allowed revenue) is regulated by the EMA in accordance with the applicable legislation as well as the relevant regulatory licences and codes of practice issued by the EMA.

The allowed revenue is approved by the EMA for a five-year regulatory period, based on certain formulae and parameters as set out in the price regulatory framework. The market support services fees chargeable to consumers are set and reviewed by the EMA every five years or earlier at the EMA's discretion.

In addition, SP Group earns revenue from providing agency services such as meter reading, billing services, collection and customer service to consumers on behalf of utility suppliers and refuse vendors.

District cooling service income

District cooling service income relates to revenue earned from providing district cooling services to consumers. The allowed revenue earned corresponds to the amount of allowed revenue which SP Group is entitled to under Condition 13 (Economic Regulation) of its District Cooling Services Licence issued by the EMA.

Other income

Other income consists primarily of income from projects to connect customer premises to SP Group's network for electricity supply or cable diversion jobs, sale of scrap, finance lease income relating to leasing of submarine pipelines, rental of premises, moveable substations and meters and exchange gain.

Expenses

Purchased power

Purchased power consists of cost of electricity purchased on behalf of all non-contestable consumers and contestable consumers who purchased electricity through SP Services, whether directly or indirectly.

Depreciation of property, plant and equipment

Depreciation consists primarily of straight-line depreciation for cables, transformers and switchgear, plant and machinery, motor vehicles, office and computer equipment as well as leasehold land and buildings used over the estimated useful life.

Amortization of intangible assets

Amortization consists primarily of straight line amortization of software and deferred expenditure. Deferred expenditure relates mainly to contributions paid by SP Group in accordance with regulatory requirements towards capital expenditure costs incurred by the electricity generating companies and onshore receiving facility operators.

Maintenance

Maintenance expense consists primarily of non-staff expenses related to the maintenance of plant and equipment, cables and buildings, computer equipment and software.

Staff costs

Staff costs relating to manpower costs in SP Group's operations, that are not capitalized, are expensed when the related service is provided. Capitalised staff costs relate to cost of employee benefits arising directly from the construction or acquisition of the item of property, plant and equipment, which is directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.

Property taxes

Property tax is a tax on immovable properties, which includes industrial and commercial properties, after taking into account any applicable property tax concessions. Property tax on SP Group's properties is currently computed by the Inland Revenue Authority of Singapore ("IRAS").

Other operating expenses

Other operating expenses consist primarily of license fees, insurance premiums, contract services, transport charges, utilities and other administrative costs.

Finance income

Finance income consists primarily of interest income from bank deposits, fixed deposits, investments in bonds and convertible notes from associate.

Finance costs

Finance costs comprise interest expense on borrowings, unwinding of the discount on provisions, fair value gains or losses on financial assets and liabilities at fair value through profit or loss, impairment losses recognized on financial assets (other than trade receivables), gains or losses on hedging instruments that are recognized in profit or loss and amortization of transaction costs capitalized.

Share of profit of associates, net of tax

Share of profit of associates, net of tax consists of SP Group's share of the consolidated profit or loss and other comprehensive income of its associates, SGSPAA and AusNet Services.

Share of profit/(loss) of joint ventures, net of tax

Share of profit/(loss) of joint ventures, net of tax consists of SP Group's share of the profit or loss and other comprehensive income in respect of SP Telecommunications Pte Ltd and Power Automation Pte Ltd.

Tax expense

Tax expense consists of current taxation, deferred taxation and over/under provision of income taxes in respect of prior years. SP Group is subject to taxes mainly in Singapore and Australia.

Results of Operations

The following table sets forth SP Group's income statement information for the years indicated:

	For the financial year ended March 31,			
	2016	**2017**	**2018**	**2018**
		(S$)		**(U.S.$)[1]**
		(in millions)		
Revenue	3,963.5	3,722.0	4,067.7	3,103.9
Purchased power	(2,073.4)	(1,803.6)	(1,972.9)	(1,505.5)
Net revenue (non-SFRS)[2]	1,890.1	1,918.4	2,094.8	1,598.4
Other income	162.6	189.0	185.6	141.6
Expenses				
Depreciation of property, plant and equipment	(522.4)	(548.5)	(579.2)	(442.0)
Amortization of intangible assets	(28.6)	(34.4)	(32.1)	(24.5)
Maintenance	(97.4)	(99.0)	(99.2)	(75.7)
Staff costs	(275.8)	(297.6)	(292.0)	(222.8)
Property taxes	(66.6)	(55.3)	(54.5)	(41.6)
Other operating expenses	(118.7)	(122.1)	(120.7)	(92.1)
Operating profit	**943.2**	**950.5**	**1,102.7**	**841.3**
Finance income	44.7	65.6	68.5	52.3
Finance costs	(142.4)	(102.2)	(123.5)	(94.2)
Share of profit of associates, net of tax	244.5	216.4	177.4	135.4
Share of profit/(loss) of joint ventures, net of tax	1.9	1.7	(5.8)	(4.4)
Profit before taxation	**1,091.9**	**1,132.0**	**1,219.3**	**930.4**
Tax expense	(168.4)	(183.2)	(197.0)	(150.3)
Profit for the year attributable to owner of Singapore Power Limited	**923.5**	**948.8**	**1,022.3**	**780.1**

Notes:

(1) Converted at the Noon Buying Rate for Singapore dollars on March 31, 2018, which was S$1.3105 per U.S.$1.00.

(2) Net revenue (a non-SFRS financial measure) is calculated by subtracting purchased power expense from revenue (a SFRS financial measure). Net revenue (non-SFRS) is presented because SP Group believes that some investors find it to be a useful tool for assessing SP Group's financial performance. Net revenue (non-SFRS) is not determined in accordance with SFRS and should not be considered in isolation or as an alternative to revenue as an indicator of operating performance or as an alternative to cash flow as a measure of liquidity. Net revenue (non-SFRS) of SP Group is not comparable to that of other companies that may determine net revenue (non-SFRS) differently.

Profit for the year by business segment

The following table sets out the breakdown of SP Group's profit for the year by business segments, by amount and as a percentage of SP Group's total profit, for FY16, FY17 and FY18.

	For the financial year ended March 31					
	2016		2017		2018	
	(S$ million)	(%)	(S$ million)	(%)	(S$ million)	(%)
Profit for the year[1]						
Transmission and distribution business in Singapore	553.0	59.9	587.4	61.9	655.1	64.1
Investments in Australia	237.0	25.7	197.4	20.8	186.9	18.3
Market Support Services Business	73.8	8.0	73.7	7.8	135.4	13.2
Others	59.7	6.4	90.3	9.5	44.9	4.4
Total	**923.5**	**100.0**	**948.8**	**100.0**	**1,022.3**	**100.0**

Note:

(1) The breakdown of profit for the year by business segment has been updated to eliminate inter-segment transactions in order to reflect the financial performance of each segment from an overall SP Group perspective, to the extent possible and reasonable.

Comparison of FY18 and FY17

Revenue

For the financial year ended March 31, 2018, SP Group's revenue increased by S$345.7 million, or 9.3%, from S$3,722.0 million for FY17 to S$4,067.7 million for FY18. This increase is attributable primarily to higher use of system revenue, higher sales of electricity because of the higher purchased power which is a passthrough cost and market support services fee collected. The higher use of system revenue is primarily due to a higher regulated asset base, partly offset by a reduction in revenue arising from an absorption of shortfall in volume compared against regulated volume and a change in customer mix.

Net revenue (non-SFRS)

For the financial year ended March 31, 2018, SP Group's net revenue (non-SFRS) increased by S$176.4 million, or 9.2%, from S$1,918.4 million for FY17 to S$2,094.8 million for FY18. This increase is attributable primarily to higher use of system revenue and market support services fees collected. The higher use of system revenue is primarily due to a higher regulated asset base, partly offset by a reduction in revenue arising from an absorption of shortfall in volume compared against regulated volume and a change in customer mix.

Other income

For the financial year ended March 31, 2018, SP Group's other income decreased by S$3.4 million, or 1.8%, from S$189.0 million for FY17 to S$185.6 million for FY18. This decrease is attributable primarily to the decrease in income relating to the supply of telecommunication systems following the partial divestment of SP Telecommunications Pte Ltd (previously a subsidiary which became a joint venture and ceased to be consolidated with SP Group's results of operations following the partial divestment) and foreign exchange losses as compared to a foreign exchange gain in the prior year, partly offset by an increase in income from customer-initiated diversion projects.

Expenses

Depreciation of property, plant and equipment

For the financial year ended March 31, 2018, SP Group's depreciation of property, plant and equipment increased by S$30.7 million, or 5.6%, from S$548.5 million for FY17 to S$579.2 million for FY18. This increase is attributable primarily to full year depreciation charges from assets capitalized in FY17, as well as depreciation from new assets capitalized in FY18.

Amortization of intangible assets

For the financial year ended March 31, 2018, SP Group's amortization of intangible assets decreased by S$2.3 million, or 6.7%, from S$34.4 million for FY17 to S$32.1 million for FY18. This decrease is attributable primarily to cessation of amortization charges from computer software that were fully amortised in FY17, partly offset by full year amortization charges from computer software capitalised in FY17.

Maintenance

For the financial year ended March 31, 2018, SP Group's maintenance costs increased by S$0.2 million, or 0.2%, from S$99.0 million for FY17 to S$99.2 million for FY18.

Staff costs

For the financial year ended March 31, 2018, SP Group's staff costs decreased by S$5.6 million, or 1.9%, from S$297.6 million for FY17 to S$292.0 million for FY18. This decrease is attributable primarily to lower manpower costs following the partial divestment of SP Telecommunications Pte Ltd (previously a subsidiary which became a joint venture and ceased to be consolidated with SP Group's results of operations following the partial divestment) and higher capitalization of manpower costs, partly offset by salary increment.

Property taxes

For the financial year ended March 31, 2018, SP Group's property taxes decreased by S$0.8 million, or 1.4%, from S$55.3 million for FY17 to S$54.5 million for FY18.

Other operating expenses

For the financial year ended March 31, 2018, SP Group's other operating expenses decreased by S$1.4 million, or 1.1%, from S$122.1 million for FY17 to S$120.7 million for FY18. This decrease is attributable primarily to a decrease in operating lease expense, partly offset by foreign exchange loss compared to an exchange gain in the prior year.

Finance income

For the financial year ended March 31, 2018, SP Group's finance income increased by S$2.9 million, or 4.4%, from S$65.6 million for FY17 to S$68.5 million for FY18. This increase is attributable primarily to higher interest income from fixed deposits.

Finance costs

For the financial year ended March 31, 2018, SP Group's finance costs increased by S$21.3 million, or 20.8%, from S$102.2 million for FY17 to S$123.5 million for FY18. This increase is attributable primarily to a higher loss from the changes in fair value of cash flow hedges.

Share of profit of associates, net of tax

For the financial year ended March 31, 2018, SP Group's share of profit of associates, net of tax, decreased by S$39.0 million, or 18.0%, from S$216.4 million for FY17 to S$177.4 million for FY18. This decrease is attributable primarily to lower contribution from SGSPAA due to lower revenue and lower contribution from AusNet Services due to changes in fair value of hedges.

Share of profit/(loss) of joint ventures, net of tax

For the financial year ended March 31, 2018, SP Group's share of profit/(loss) of joint ventures, net of tax, decreased by S$7.5 million, or 441.2%, from S$1.7 million profits for FY17 to S$5.8 million losses for FY18. This decrease is attributable primarily to the losses incurred by SP Telecommunications (previously a subsidiary which became a joint venture and ceased to be consolidated with SP Group's results of operations following the partial divestment), arising from the reduction in scope of contract with its main customer upon the maturity of the previous contract.

Tax expense

For the financial year ended March 31, 2018, SP Group's tax expense increased by S$13.8 million, or 7.5%, from S$183.2 million for FY17 to S$197.0 million for FY18. This increase is attributable primarily to higher taxable profits for FY18.

Profit for the year, attributable to owner of Singapore Power Limited

For the financial year ended March 31, 2018, SP Group's profit for the year increased by S$73.5 million, or 7.7%, from S$948.8 million for FY17 to S$1,022.3 million for FY18. This increase is due to the factors discussed above.

Comparison of FY17 and FY16

Revenue

For the financial year ended March 31, 2017, SP Group's revenue decreased by S$241.5 million, or 6.1%, from S$3,963.5 million for FY16 to S$3,722.0 million for FY17. This decrease is attributable primarily to lower sales of electricity because of the lower purchased power which is a passthrough cost, partly offset by higher use of system revenue and higher market support services fees collected. The higher use of system revenue is from a higher regulated asset base, partly offset by a reduction in revenue arising from an absorption of shortfall in volume compared against regulated volume and a change in customer mix.

Net revenue (non-SFRS)

For the financial year ended March 31, 2017, SP Group's net revenue (non-SFRS) increased by S$28.3 million, or 1.5%, from S$1,890.1 million for FY16 to S$1,918.4 million for FY17. This increase is attributable primarily to higher use of system revenue and market support services fees. The higher use of system revenue is from a higher regulated asset base, partly offset by a reduction in revenue arising from an absorption of shortfall in volume compared against regulated volume and a change in customer mix.

Other income

For the financial year ended March 31, 2017, SP Group's other income increased by S$26.4 million, or 16.2%, from S$162.6 million for FY16 to S$189.0 million for FY17. This increase is attributable primarily to an increase in income from customer-initiated diversion projects, sales of scrap and foreign exchange gain.

Expenses

Depreciation of property, plant and equipment

For the financial year ended March 31, 2017, SP Group's depreciation of property, plant and equipment increased by S$26.1 million, or 5%, from S$522.4 million for FY16 to S$548.5 million for FY17. This increase is attributable primarily to full year depreciation charges from assets capitalized in FY16, as well as depreciation from new assets capitalized in FY17.

Amortization of intangible assets

For the financial year ended March 31, 2017, SP Group's amortization of intangible assets increased by S$5.8 million, or 20.3%, from S$28.6 million for FY16 to S$34.4 million for FY17. This increase is attributable primarily to full year amortization charges from computer software capitalized in FY16.

Maintenance

For the financial year ended March 31, 2017, SP Group's maintenance costs increased by S$1.6 million, or 1.6%, from S$97.4 million for FY16 to S$99.0 million for FY17. This increase is attributable primarily to an increase in repair works based on the condition of SP Group's assets.

Staff costs

For the financial year ended March 31, 2017, SP Group's staff costs increased by S$21.8 million, or 7.9%, from S$275.8 million for FY16 to S$297.6 million for FY17. This increase is attributable primarily to salary increment and bonus provisions.

Property taxes

For the financial year ended March 31, 2017, SP Group's property taxes decreased by S$11.3 million, or 17%, from S$66.6 million for FY16 to S$55.3 million for FY17. This decrease is attributable primarily to the lower annual values of properties, which is calculated based on the profits method using the profits of FY16.

Other operating expenses

For the financial year ended March 31, 2017, SP Group's other operating expenses increased by S$3.4 million, or 2.9%, from S$118.7 million for FY16 to S$122.1 million for FY17. This increase is attributable primarily to an increase in operating lease expense, partly offset by exchange loss in the prior year.

Finance income

For the financial year ended March 31, 2017, SP Group's finance income increased by S$20.9 million, or 46.8%, from S$44.7 million for FY16 to S$65.6 million for FY16. This increase is attributable primarily to a full year of interest received on convertible notes receivable from associates in FY17 as compared to 7 months in FY16 and a higher interest income from fixed deposits.

Finance costs

For the financial year ended March 31, 2017, SP Group's finance costs decreased by S$40.2 million, or 28.2%, from S$142.4 million for FY16 to S$102.2 million for FY17. This decrease is attributable primarily to recognition of a bank facility being terminated in FY16.

Share of profit of associates, net of tax

For the financial year ended March 31, 2017, SP Group's share of profit of associates, net of tax, decreased by S$28.1 million, or 11.5%, from S$244.5 million for FY16 to S$216.4 million for FY17. This decrease is attributable primarily to lower contribution from AusNet Services in FY17 arising from one-off tax benefits recognized in FY16, partly offset by higher contribution from SGSPAA in FY17 relating to a one-time expense recorded for site remediation in FY16.

Share of profit/(loss) of joint ventures, net of tax

For the financial year ended March 31, 2017, SP Group's share of profit of joint ventures, net of tax, decreased by S$0.2 million, or 10.5% from S$1.9 million for FY16 to S$1.7 million for FY17. This decrease is attributable primarily to lower contribution from Power Automation Pte Ltd.

Tax expense

For the financial year ended March 31, 2017, SP Group's tax expense increased by S$14.8 million, or 8.8%, from S$168.4 million for FY16 to S$183.2 million for FY17. This increase is attributable primarily to higher taxable profits for FY17.

Profit for the year, attributable to owner of Singapore Power Limited

For the financial year ended March 31, 2017, SP Group's profit for the year increased by S$25.3 million, or 2.7%, from S$923.5 million for FY16 to S$948.8 million for FY17. This increase is due to the factors discussed above.

Liquidity and Capital Resources

Overview

SP Group's primary sources of liquidity have historically been funds generated from operations and debt financing. SP Group aims to strike a balance between optimizing its capital structure and achieving a prudent level of leverage. It is anticipated that SP Group will use the net proceeds arising from the issue of the Notes under the Program to finance its capital and operating expenditures, to finance its indebtedness and borrowings, to finance or refinance acquisitions and/or investments by any member of the SP Group and for general corporate purposes, unless otherwise disclosed in the relevant Pricing Supplement.

SP Group believes that its sources of liquidity and capital resources should be sufficient to satisfy operational requirements for the next 12 months.

Liquidity

Cash Flows

The following table sets forth certain information about SP Group's cash flows during FY16, FY17 and FY18:

	For the financial year ended March 31,		
	2016	**2017**	**2018**
		(S$ million)	
Profit for the year	923.5	948.8	1,022.3
Cash generated from operations[(1)]	1,608.8	1,607.7	1,448.2
Net cash generated from operating activities[(1)]	1,556.5	1,567.6	1,402.9
Net cash used in investing activities	(1,114.1)	(1,134.3)	(1,600.0)
Net cash (used in)/generated from financing activities	(14.7)	(409.2)	196.6
Net increase (decrease) in cash and cash equivalents[(1)]	427.7	24.1	(0.5)
Cash and cash equivalents at beginning of the year	1,203.3	1,630.2	1,677.1
Effect of exchange rate changes on balances held in foreign currencies[(1)]	(0.8)	22.8	(42.0)
Cash and cash equivalents at end of the year[(1)]	1,630.2	1,677.1	1,634.6

Note:

(1) Restricted cash balances held by SP Group for the purpose of administering the Gas Network Code were presented as a separate line item in tue audited consolidated statement of cash flows of SP Group for FY17, but were included in the line item "others" under "cash flows from operating activities" in the audited consolidated statement of cash flows of SP Group for FY18. For purposes of this table, the line items "cash generated from operations", "net cash generated from operating activities" and "net increase / (decrease) in cash and cash equivalents" for FY17 have been re-presented to reflect the consequences of restricted cash balances coming under "cash flows from operating activities" in order to conform to the presentation in the audited financial statements of SP Group for FY18.

Financial Year Ended March 31, 2018

Net cash generated from operating activities for the financial year ended March 31, 2018 totaled S$1,402.9 million, mainly comprised S$4,018.6 million inflow of collections from customers and S$65.7 million of interest received, while outflows comprised S$2,570.4 million paid to suppliers and S$111.0 million of net tax paid.

Net cash used in investing activities for the financial year ended March 31, 2018 totaled S$1,600.0 million, including S$1,232.4 million spent on the purchase of plant, property, and equipment such as cables, switch gears and transformers and S$488.2 million spent on addition to investment property.

Net cash generated from financing activities for the financial year ended March 31, 2018 totaled S$196.6 million, resulting mainly from the issuance of S$842.1 million of bonds and borrowings, partially offset by the payment of S$380.0 million of dividend to the owner of Singapore Power Limited, redemption of S$139.4 million of bonds and borrowings and interest payment of S$123.3 million.

Cash and cash equivalents in the balance sheet decreased by S$42.5 million for the financial year ended March 31, 2018 compared to March 31, 2017, from S$1,677.1 million as of March 31, 2017 to S$1,634.6 million as of March 31, 2018. Cash and cash equivalents are denominated mainly in the functional currencies of the respective SP Group entities and includes S$1.7 million of restricted cash balances being held for the purpose of administering the Gas Network Code.

Financial Year Ended March 31, 2017

Net cash generated from operating activities for the financial year ended March 31, 2017 totaled S$1,567.6 million, mainly comprised S$3,999.7 million inflow of collections from customers and S$60.4 million of interest received, while outflows comprised S$2,392.0 million paid to suppliers and S$100.5 million of net tax paid.

Net cash used in investing activities for the financial year ended March 31, 2017 totaled S$1,134.3 million, including S$1,236.5 million spent on the purchase of property, plant and equipment such as cables, switch gears and transformers.

Net cash used in financing activities for the financial year ended March 31, 2017 totaled S$409.2 million, resulting mainly from the payment of S$370.0 million of dividend to the owner of Singapore Power Limited and interest payment of S$116.1 million.

Cash and cash equivalents in the balance sheet increased by S$46.9 million for the financial year ended March 31, 2017 compared to March 31, 2016, from S$1,630.2 million as of March 31, 2016 to S$1,677.1 million as of March 31, 2017. Cash and cash equivalents are denominated mainly in the functional currencies of the respective SP Group entities and includes S$0.6 million of restricted cash balances being held for the purpose of administering the Gas Network Code.

Financial Year Ended March 31, 2016

Net cash generated from operating activities for the financial year ended March 31, 2016 totaled S$1,556.5 million, mainly comprised S$4,248.3 million inflow of collection from customers and S$33.9 million of interest received, while outflows comprised S$2,639.5 million paid to suppliers and S$86.2 million of net tax paid.

Net cash used in investing activities for the financial year ended March 31, 2016 totaled S$1,114.1 million, including S$1,209.9 million spent on the purchase of plant, property, and equipment such as cables, switch gears and transformers, partially offset by capital repayment of S$78.7 million by an associate.

Net cash used in financing activities for the financial year ended March 31, 2016 totaled S$14.7 million, resulting mainly from the payment of S$316.0 million of dividends to the owner of Singapore Power Limited, redemption of S$658.5 million of borrowings and interest payment of S$108.4 million, partially offset by an issuance of S$1,070.5 million of bonds and borrowings.

Cash and cash equivalents in the balance sheet increased by S$426.9 million for the financial year ended March 31, 2016 compared to March 31, 2015, from S$1,203.3 million as of March 31, 2015 to S$1,630.2 million as of March 31, 2016. Cash and cash equivalents are denominated mainly in the functional currencies of the respective SP Group entities.

Indebtedness

SP Group aims to strike a balance between optimizing its capital structure and achieving a prudent level of leverage. As of the date of this Offering Circular, SP Group has S$1.0 billion in undrawn committed credit facilities in total from five banks.

The following table sets forth SP Group's total debt at the dates indicated:

	As at March 31,			
	2016	2017	2018	2018
Total debt (million)[1]	S$4,201.2	S$4,287.2	S$4,771.4	U.S.$3,640.9[2]
Total debt/(total debt and equity) (%)	31.6	30.4	31.8	31.8

Notes:

(1) Total debt comprises long-term debt (including current position) and loan to fund payments under a regulatory scheme. The amounts are stated at amortized cost.

(2) Converted at the Noon Buying Rate for Singapore dollars on March 31, 2018, which was S$1.3105 per U.S.$1.00.

Interest rates on external debt obligations denominated in Singapore dollars range from 0.97% to 5.07% (2017: 0.97% to 5.07%) per annum. Interest rates on external foreign currency debt obligations range from 1.95% to 4.01% (2017: 1.70% to 4.01%) per annum.

The Issuer may from time to time issue notes under the Program. SPPA, a wholly-owned subsidiary of SP, has an existing Global Medium Note Program (the "SPPA Program"). As of March 31, 2018, the outstanding debt under the SPPA Program was S$1.9 billion, Hong Kong dollar 0.5 billion, U.S.$ 1.8 billion and Japanese Yen 22.0 billion.

The following table indicates as of March 31, 2018 SP Group's total debt which is due by periods:

	Payment due by periods				
	Within 1 year	After 1 year but within 2 years	After 2 years but within 5 years	More than 5 years	Total
			(S$ million)		
Total debt	683.2	315.0	1,971.0	2,693.8	5,663.0

Capital Expenditure

Total capital expenditure incurred for FY16, FY17 and FY18 was S$1,253.8 million, S$1,385.3 million and S$2,141.3 million, respectively.

The amount that SP Group spends on capital expenditure is determined primarily by growth as well as renewal from transmission and distribution projects. Capital expenditures may fluctuate from year to year depending on when these projects are incurred. Transmission projects are driven by load growth from consumer and generation connections; as well as renewal of transmission equipment and circuits. Distribution projects are driven mainly by consumer demand.

The EMA has set price controls for the current five-year regulatory period based primarily on the weighted average cost of capital and the estimated operating and capital expenditures for the Electricity T&D Business, the Gas T&D Business and the Market Support Services Business over the next five years.

The following table sets forth SP Group's capital expenditure by business segment for the years indicated:

	For the financial year ended March 31,		
	2016	2017	2018
	(S$ million)		
Transmission and distribution business in Singapore segment[(1)]	1,179.8	1,212.1	1,326.9
Market Support Services Business	36.3	76.2	60.8
Others	37.7	97.0	753.6[(2)]
Total	1,253.8	1,385.3	2,141.3

Note:

(1) The Transmission and distribution business in Singapore segment includes the development of the underground substation and operational support center. The capital expenditure relating to this development was approximately S$8 million, S$10 million and S$64 million for the financial years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively. See "Business of SP Group — Transmission and Distribution Business in Singapore — Electricity T&D Business" for more information regarding this development

(2) The increase in capital expenditure in respect of the "Others" segment for FY18 against FY17 is primarily due to development of a commercial building for leasing purposes. This is classified as "Investment Property" under FY18 Balance Sheet. See "Business of SP Group — Other Businesses — Real Estate" for more information regarding this development.

Capital expenditure for each of the years indicated above was largely incurred in Singapore, with capital expenditure outside of Singapore comprising only S$2.0 million, S$2.3 million and S$7.8 million out of SP Group's total capital expenditure of S$1,253.8 million, S$1,385.3 million and S$2,141.3 million, respectively, for the financial years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively.

Based on current approved plans, load projections and the condition of SP Group's assets, in comparison with the periods set out in the table above, total capital expenditure in FY19 is expected to be comparable to total capital expenditure for FY18 (after excluding capital expenditure incurred in FY18 on account of the development of SP Group's investment property, as described in more detail in the section "Business of SP Group — Other Businesses — Real Estate" and "Business of SP Group — Transmission and Distribution Business in Singapore — Enhancement of Electricity Transmission and Distribution Network"). The major capital expenditure projects planned for FY19 consist of:

- development of a new 400kV/230kV substation projects and network circuits to support the expected increase in generation capacities and load demand in Jurong Island and Tuas;
- development of an underground 230kV substation and operational support center at Pasir Panjang (as part of the development project, as described under the section "Business of SP Group — Transmission and Distribution Business in Singapore — Electricity T&D Business");
- renewals of transmission 230kV network circuits, including the Tenaga Nasional Berhad ("TNB") interconnectors, as described in more details in the section "Business of SP Group — Transmission and Distribution Business in Singapore — Electricity Transmission and Distribution Network Assets — Interconnectors";
- construction and development of two tunnels (North-South cable tunnel and East-West cable tunnel) in Singapore, as described in more details in the section "Business of SP Group — Transmission And Distribution Business in Singapore — Tunnels owned under the SPCIT Trust"; and
- renewals of aging ductile iron town gas mains.

SP Group intends to fund capital expenditure through a combination of cash flows from operations and external borrowings.

Off-Balance Sheet Arrangements

Other than non-cancellable operating leases set forth below in " — Capital and other Commitments", SP Group does not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on its financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that are material to an investment in securities of SP Group.

Capital and other Commitments

SP Group's capital commitments which are contracted but not provided for in the consolidated financial statements of SP Group amount to S$1,931.5 million as of March 31, 2018, and comprise primarily of property, plant and equipment and intangible assets.

The following table lists as of March 31, 2018 information with respect to SP Group's operating lease commitments which are committed but not provided for in the consolidated financial statements of SP Group:

	Payments due by periods			
	Within 1 year	After 1 year but within 5 years	More than 5 years	Total
	(S$ million)			
Operating lease commitments.....	3.6	6.6	22.7	32.9

SP Group intends to fund its capital commitments and operating lease commitments through a combination of cash flows from operations and external borrowings.

Risk Management

SP Group is exposed to specific risks in the conduct of its business and the environment in which it operates. These include foreign currency, interest rate, market price, credit, liquidity, regulatory and supply source failures risks which arise in the normal course of SP Group's business. Generally, SP Group's overall objective is to manage and minimize its exposure to such risks.

SP Group enters into a variety of derivative financial instruments to manage its exposure to interest rate and foreign currency risk, including spot and forward foreign exchange contracts, interest rate swaps and cross currency interest rate swaps. SP Group does not enter into or trade financial instruments, including derivative financial instruments, for speculative purposes.

SP Group's policies for managing each of these risks are as described below.

Foreign currency risk

SP Group is exposed to foreign currency risks from borrowing activities, purchase, supply and installation contracts, cash and cash equivalents and trade creditors which are denominated in currencies other than Singapore dollars (or in the case of SP Group's foreign subsidiaries, their respective functional currencies). SP Group mitigates its foreign exchange risk by utilizing various hedging instruments.

SP Group enters into cross-currency interest rate swaps to manage exposures arising from foreign currency borrowings, including U.S. dollars, Japanese Yen and Hong Kong dollars. Under cross currency interest rate swaps, SP Group agrees to exchange specified foreign currency principal and interest amounts at an agreed future date at a pre-determined exchange rate. Such contracts enable SP Group to mitigate the risk of adverse movements in foreign exchange rates. Except where a foreign currency borrowing is taken with the intention of providing a natural hedge by matching the underlying cash flows, all foreign currency borrowings are swapped back to Singapore dollars or the functional currency of the subsidiary concerned.

SP Group uses forward foreign exchange contracts to substantially hedge foreign currency risk attributable to purchase transactions. The maturities of the forward exchange contracts are intended to match the forecasted progress payments of the supply and installation contracts. Whenever necessary, forward exchange contracts are either rolled over at maturity or translated into foreign currency deposits whichever is more cost efficient.

Interest rate risk

SP Group manages its interest rate exposure for the current regulatory period by maintaining a significant portion of its debt at fixed interest rates for that regulatory period. This is done by the (i) issuance of fixed rate debt; (ii) use of interest rate swaps to convert floating rate debt to fixed rate debt; or (iii) use of cross currency interest rate swaps to convert fixed or variable rate non-functional currency denominated debt to fixed rate functional currency denominated debt.

SP Group's excess funds are principally invested in bank deposits of varying maturities to match its cash flow needs.

Market price risk

Market price risk is the risk that the fair value or future cash flows of SP Group's financial instruments will fluctuate because of changes in market prices (other than interest or exchange rates). SP Group is exposed to price risk arising from its investment in fixed income securities. These securities are mainly listed in Singapore and are classified as available-for-sale financial assets.

Credit risk

SP Group is exposed to credit risk if a customer or counterparty to a financial instrument fails to meet its contractual obligations. Credit risk arises principally from SP Group's financial assets, comprising cash and cash equivalents, trade and other receivables and other financial instruments.

Surplus funds are principally invested in interest-bearing deposits with financial institutions with good credit ratings assigned by international credit rating agencies. Counterparty risks are managed by limiting exposure to any individual counterparty. SP Group's portfolio of financial instruments is entered into with a number of creditworthy counterparties, thereby mitigating concentration of credit risk.

Counterparty risks on derivatives are generally restricted to any gain or loss when marked to market, and not on the notional amount transacted. As a prudent measure, SP Group enters into derivatives only with financial institutions with good credit ratings assigned by international credit rating agencies.

There is no significant concentration of credit risk of trade receivables. In addition to customers' deposits, SP Group holds guarantees from creditworthy financial institutions to secure the obligations of certain customers.

Liquidity risk

Liquidity risk is the risk that a company will not be able to meet its financial obligations as they fall due. SP Group has adopted prudent liquidity risk management by maintaining sufficient cash and liquid financial assets to meet its short term needs. SP Group has taken measures to facilitate availing itself of funding through bank credit lines and the establishment of this Program.

Regulatory risk

SP Group's charges for transmitting and distributing electricity and gas across its transmission and distribution networks, which are the most significant determinant in SP Group's operating results, are subject to price controls set by the EMA. The price controls for SP Group's transmission and distribution business in Singapore are applicable for each regulatory period (which is currently set at five years) from their date of issue and are based on the weighted average cost of capital and the projected operating and capital expenditures of the Electricity T&D Business and the Gas T&D Business. If the actual cost exceeds

the projections or SP Group's price controls are set too low, SP Group's actual costs may exceed revenues permitted to be collected pursuant to the prevailing price controls, which may have a material adverse effect on SP Group's financial performance. The EMA is conducting, and may from time to time conduct, consultations on matters, such as the parameters relating to application of SP Group's building block calculations, which could result in regulatory changes that may affect SP Group's business, revenues and results of operations. No assurance can be given that such regulatory changes (if and when they come into effect) will not have a material adverse effect on SP Group's business, revenues or results of operations.

SP Group seeks to minimize its regulatory risk by working with the Government and its regulators to ensure that the regulatory framework is economically robust. To achieve favorable regulatory outcomes, SP Group monitors international regulatory developments and best practices, as well as benchmark its costs and performance to promote efficiency and work closely with the regulator on pricing and consumer-related issues. SP Group also proactively manages its large industrial consumers and seek their feedback on its pricing and services.

SP Group meets with Government officials and regulators on a regular basis. The objective of this close working relationship is to encourage the adoption of practical policies as well as an economically robust regulatory framework. SP Group intends to continue to work in consultation with the EMA.

Supply source failure

SP Group does not rely on any single supplier for key services or equipment to mitigate against single supply source failures. Terms and conditions for each contract are specific to the nature of goods and services procured.

Defaults in customer payment

SP Group seeks to minimize its credit exposure from its customers by requiring security deposits, which may be in the form of a bank guarantee or cash or irrevocable letter of credit. The amount of security deposit which SP Group requires is calibrated based on a number of factors, including (amongst other things) the overall credit exposure to the particular customer, the payment history of particular customers or categories of customers as well as general market conditions.

Related Party Transactions

SP Group has entered into a range of transactions with entities owned or controlled by Temasek. SP Group expects to enter into similar transactions in the future. In its ordinary course of business, SP Group has dealt with and will from time to time deal with other companies owned or controlled by Temasek.

For a description of SP Group's significant related party transactions, see Note 28 of the audited financial statements of SP Group for the years ended March 31, 2018, and March 31, 2016 and Note 27 of the audited financial statements of SP Group for the year ended March 31, 2017 included elsewhere in this Offering Circular. For the purposes of such financial statements, parties are considered to be related to SP Group if SP Group has the ability, directly or indirectly, to control the party or exercise significant influence over the party in making financial and operating decisions, or vice versa, or where SP Group and the party are subject to common control or common significant influence. Related parties may be individuals or other entities.

SP's immediate holding company is Temasek, which is incorporated in the Republic of Singapore. Temasek is an investment company headquartered in Singapore with a diversified investment portfolio. Accordingly, all the subsidiaries of Temasek are related corporations and are subject to common control.

SP Group engages in a wide variety of transactions with related corporations in the normal course of business on terms similar to those available to other consumers. Such transactions include but are not limited to sales and purchases of power, provision of consultancy and engineering services, leasing of cables and ducts, agency services and financial and banking services. The related party transactions are carried out on terms negotiated between the parties which are intended to reflect competitive terms.

All transactions with companies in the Temasek group are related party transactions. The Temasek group has extensive interests in a large number of companies and it is not practical to compile data on the value of transactions with the Temasek group. As SP Group's rates for use of system charges, transportation of gas, sales of electricity and market support services fees are based on posted tariffs approved by the EMA, it is not meaningful to present such information.

INDUSTRY AND REGULATION

Information in the section below not relating to the Issuer, SP or SP Group has been derived from publicly available sources (including, without limitation, the website of the EMA) and publications produced by third parties. Such information has not been independently verified by the Issuer, SP, the Arrangers, the Dealers or any of their respective affiliates or advisors. The Issuer and SP make no representation as to the correctness or accuracy of such information and, accordingly, such information should not be unduly relied upon.

The information contained in this Offering Circular (including, without limitation, in this section) includes references to, and summaries of, certain provisions of the laws and regulations of Singapore relating to the businesses of transmitting and distributing electricity, transporting and distributing gas and providing district cooling services in Singapore. Such information is included for general information only and does not purport to be a comprehensive description or exhaustive statement of the applicable laws and regulations.

ELECTRICITY INDUSTRY IN SINGAPORE

Overview of the Singapore Electricity Industry

The electricity industry in Singapore can be divided into the following principal businesses:

- generation, which is the production of electricity at electricity generation plants using fossil fuels and other sources of energy;
- transmission (which is the transfer of electricity from electricity generation plants either to a distribution network or directly to large industrial electricity consumers using a network of high-voltage power cables) and distribution (which is the delivery of electricity to homes and businesses using a network of high-voltage and low-voltage power cables);
- retailing, which is the purchase of electricity by, and its sale to, individual electricity consumers; and
- the provision of various services and activities relating to the electricity industry, including market support services, and the operation of and trading in the wholesale electricity market.

Electricity transmission involves the transfer of electricity produced at electricity generation plants owned by third parties, which is boosted by transformers to extra high-voltages so that it can be economically and efficiently moved long distances over an electricity transmission network to major load centers with minimal power loss. The voltage is then reduced at transmission substations for supply to consumers by means of a low-voltage distribution network. Distribution network voltages and equipment capacity are determined by electricity consumer requirements and location.

The practicalities of transferring electricity are such that high-voltage transmission networks are used for the transfer of large amounts of electricity over longer distances with low-voltage distribution networks becoming more economic for the transfer of smaller amounts of electricity over shorter distances.

Because electricity currently cannot be economically stored in large quantities, the output of electricity generation plants must be continuously matched to the demand levels in various load centers in order to ensure the stability of the power system, including desired frequency and voltage levels.

Characteristics of the Singapore Electricity Industry

The commercial and industrial consumers together represent approximately 83% of total electricity consumption in Singapore each year, while residential consumers account for approximately the remaining 17%. The key commercial sector includes transport, community services and business services firms. The major industrial sector encompasses oil refineries, chemical industries and electronics firms.

The aggregate volume of electricity transmitted and distributed in Singapore is affected by the general economy of Singapore. The rate of increase in electricity consumption is also affected by additional factors such as the weather, retail price of electricity, improvements in energy efficiency and changes in the mix of industries in Singapore.

Electricity also competes with other energy sources, notably natural gas, for some industrial and commercial purposes. However, for many other purposes, including many industrial processes, there is often no practicable substitute for electricity. Demand for electricity and its transmission and distribution varies from day to day and throughout each day, according to the weather, time of year, time of day, the level of economic activity and consumer behavior. Electricity demand tends to be higher during daylight hours due to commercial and industrial activities and use of electrical appliances such as air conditioners during this period.

Electricity Sales and Consumption in Singapore

The following tables set forth, for the periods indicated, aggregate sales of electricity in Singapore and the percentage increase in aggregate sales of electricity, sales of electricity to residential electricity consumers, and sales of electricity to commercial and industrial electricity consumers:

	For the year ended December 31,		
	2015	**2016**	**2017**
Total electricity sales (in GWh)[(1)]	47,514	48,627	49,437
Percentage increase in total electricity sales	2.4	2.3	1.7
Percentage increase in residential electricity sales	4.3	5.1	(3.9)
Percentage increase in commercial and industrial electricity sales	2.1	1.8	2.7

Note:

(1) Total electricity sales refers to consumption by end users, including (embedded) consumption by autoproducers and consumption of output from solar generation.

Source: Singapore Department of Statistics as of June 2018

Regulatory History of the Singapore Electricity Industry

The following is a general summary of the laws and regulations of Singapore relating to the business of transmitting and distributing electricity in Singapore. It is for general information only and does not purport to be a comprehensive description or exhaustive statement of the applicable laws and regulations.

The electricity transmission and distribution network of Singapore is currently owned by a single entity, SP PowerAssets, and is essential to Singapore's national interest, economic development and security. Singapore's electricity industry was traditionally vertically integrated and Government-owned. In 1963, the Public Utilities Board (the "PUB"), a statutory board of the Government, was established as the sole electricity, water and gas supplier in Singapore. In 1995, the Government began to implement a number of changes to restructure the Singapore electricity industry.

On October 1, 1995, the PUB transferred certain of its operating businesses into seven successor companies, including a holding company, Singapore Power Limited, and the following companies:

- three Generation Licensees, PowerSeraya Limited (subsequently transferred its business to YTL PowerSeraya Pte Ltd) ("PowerSeraya"), Senoko Power Limited (subsequently named Senoko Energy Pte Ltd) ("Senoko Energy") and Tuas Power Limited (subsequently transferred its business to Tuas Power Generation Pte Ltd) ("Tuas Power");

- an electricity transmission and distribution company, PowerGrid Limited ("PowerGrid"). Further to the restructuring of PowerGrid in 2003, PowerGrid transferred its business to SP PowerAssets;

- a retail electricity supply company, Power Supply Limited (subsequently named SP Services): and

- a vertically integrated gas supply company, PowerGas.

Each of these successor companies, except for Tuas Power (which became directly owned by Temasek until its divestment to SinoSing Power Pte Ltd (which was then wholly-owned by the China Huaneng Group) in 2008), became subsidiaries of Singapore Power Limited. The PUB assumed the role of regulating the electricity industry in Singapore.

On April 1, 1998, the Singapore Electricity Pool (the "SEP") commenced operations as a wholesale electricity market to facilitate the trading of electricity between Generation Licensees and Power Supply Limited (now known as SP Services Limited), then the sole supplier of electricity in Singapore. The Singapore electricity market is a mandatory electricity spot market while Generation Licensees and Power Supply Limited (now known as SP Services Limited) are allowed to enter into voluntary contracts to hedge against the volatility of pool prices. PowerGrid was given the responsibility of operating the SEP as system and market operator, providing for pooling and settlement and maintaining system security and stability for the electricity transmission and distribution network.

On March 11, 2000, the Government announced that Singapore's electricity industry would be further liberalized, with the objective of creating a regulatory framework and market structure designed to promote competition while ensuring reliability and security of electricity supply. The Government enacted legislation that created a competitive market framework for the electricity industry in Singapore in March 2001, consisting, among others, of the Electricity Act and the Energy Market Authority of Singapore Act, Chapter 92B of Singapore (the "EMA Act"). The regulatory regime for the electricity industry established by the Electricity Act is largely based on regulatory regimes implemented in Australia and the United Kingdom which are relatively well developed.

The Electricity Market in Singapore

On April 1, 2001 the Government established a body corporate, the EMA, under the Ministry of Trade and Industry, to regulate, among others, the electricity industry as well as the piped gas industry. As part of the electricity industry restructuring, effective April 1, 2001, PowerGrid transferred its former system operator function to the EMA and former market operator and pooling and settlement responsibilities to the EMC, which was formed as a subsidiary of the EMA to operate the SEP and subsequently the wholesale electricity market in Singapore. As part of this transfer, PowerGrid transferred certain personnel and assets to the EMA and EMC. The EMC was established in 2001 as a joint venture between the EMA and M-co (The Marketplace Company) Pte Ltd ("M-co"). The EMA owns 51% and M-co used to hold 49% of EMC. Singapore Exchange ("SGX"), through its wholly-owned subsidiary Asian Gateway Investment ("AGI"), acquired the 49% stake of EMC from M-co on August 6, 2012. SGX further acquired through AGI the EMA's 51% share on October 1, 2014, making EMC a wholly-owned subsidiary of AGI.

In addition, as part of the Government's policy of separating ownership of electricity generation assets from ownership of the transmission and distribution network, on April 1, 2001 Singapore Power Limited fully divested its interests in Generation Licensees Senoko Power and PowerSeraya to Temasek. In 2008, Temasek divested all its interest in Senoko Power (now known as Senoko Energy Pte Ltd) to Lion Power Holdings Pte Ltd, which was then owned by a consortium comprising Marubeni Corporation, GDF Suez S.A. (now known as Engie Group), The Kansai Electric Power Co., Inc, Kyushu Electric Power Co., Inc. and Japan Bank for International Cooperation; and in 2009, Temasek divested all its interest in PowerSeraya to Sabre Energy Industries Private Limited (which was then wholly-owned by YTL Power International Berhad). New market rules for the wholesale electricity market took effect on January 1, 2003, and the SEP was terminated and replaced by a new wholesale electricity market.

The EMA was established in April 2001 pursuant to the EMA Act as an independent regulator overseeing, among others, the electricity industry. The functions and duties of the EMA (as set out in the Electricity Act) include:

- protecting the interests of consumers with regard to the prices charged and other terms for the supply of electricity, the reliability, availability and continuity of supply of electricity, and the quality of electricity services provided;

- promoting the efficient use of electricity by consumers and economic efficiency and the maintenance of such efficiency in the electricity industry;

- performing the function of economic and technical regulator of the electricity industry, including the exercise of licensing and regulatory functions in respect of, the generation, transmission, import, export, trading and retail of electricity, the provision of market support services, the operation of any wholesale electricity market, and the establishment of standards of performance and codes of practice relating to any matter connected with the activities regulated by the EMA;

- securing that Electricity Licencees whose prices are controlled by the EMA are able to provide an efficient service and maintain financial viability;

- ensuring security of supply of electricity to consumers and arranging for the secure operation of the transmission system in accordance with the Electricity Market Rules or other codes of practice;

- protecting the public from dangers arising from the generation, transmission, supply or use of electricity;

- creating an economic regulatory framework in respect of the generation, transmission, import, export, trading and retail of electricity, the provision of market support services and the operation of any wholesale electricity market which promotes and safeguards competition and fair and efficient market conduct, and prevents the misuse of monopoly or market power, and which provides non-discriminatory access to any wholesale electricity market and to transmission services and market support services;

- advising the Government on all matters relating to the generation, transmission, trading, retail and use of electricity, the provision of market support services and the operation of any wholesale electricity market; and

- doing such other things as may be required under the Electricity Act and taking such steps as are necessary or expedient for the effective discharge of its functions and duties under the Electricity Act.

Summary of the Restructured Electricity Industry in Singapore

SPPA is currently the sole Transmission Licensee in Singapore. SPPA offers open and non-discriminatory access to its transmission and distribution network. The charges for network utilization applicable to the electricity transmission and distribution network are subject to regulation by the EMA. SPPA plans, develops, owns and maintains the electricity transmission and distribution network that delivers electricity to substantially all electricity consumers in the electricity market in Singapore. SPPA operates its distribution network while a division of the EMA, the Power System Operator (the "PSO"), operates its transmission network to ensure system stability and security.

Participants in the electricity market in Singapore include:

- the EMA, which serves as the regulator of the electricity industry in Singapore;

- the EMC, which as market operator operates and administers the wholesale electricity market, schedules electricity generation units, loads and SPPA's transmission network, facilitates planning and augmentation of the transmission network and provides information and other services to facilitate decisions for investment;

- the PSO, a division of the EMA, which controls the dispatch of electricity generation units and dispatchable demands in the electricity market, operates and directs the operation of SPPA's transmission network, co-ordinates outage and emergency planning, and is responsible for the management of operations and security of the power system;

- Generation Licensees, which generate and sell electricity in the wholesale electricity market;

- SPPA, currently the sole Transmission Licensee in the electricity market, plans, develops, own and maintains the electricity transmission and distribution network that delivers electricity to substantially all electricity consumers;

- electricity wholesaler licensees, which trade electricity in the wholesale electricity market;

- Retail Licensees, who either buy electricity directly from the wholesale electricity market or through SP Services to sell to contestable consumers;

- consumers, who are either contestable consumers (who may choose their Retail Licensee, buy electricity directly from the wholesale electricity market or buy electricity from the wholesale electricity market via MSSL) or non-contestable consumers (who choose to pay at regulated tariffs), (see " — Summary of the Restructured Electricity Industry in Singapore — Contestability"); and

- SP Services, which in its capacity as the only MSSL at present in Singapore, provides services such as meter reading, supplying electricity to non-contestable consumers, preparing bills for non-contestable consumers, and preparing settlement-ready meter data for Retail Licensees for contestable consumers, and consumer registration and transfer services between Retail Licenses.

The electricity market in Singapore consists of a wholesale electricity market and a retail market.

The Wholesale Electricity Market

The wholesale electricity market consists of a "real-time" market or spot market for energy, regulation and reserve administered by the EMC, and a procurement market for ancillary services required to maintain the secure operation of the power system.

At every half-hour, the spot market determines:

- the quantity that each electricity generation facility is to produce;

- the reserve and regulation capacity to be maintained by each electricity generation facility; and

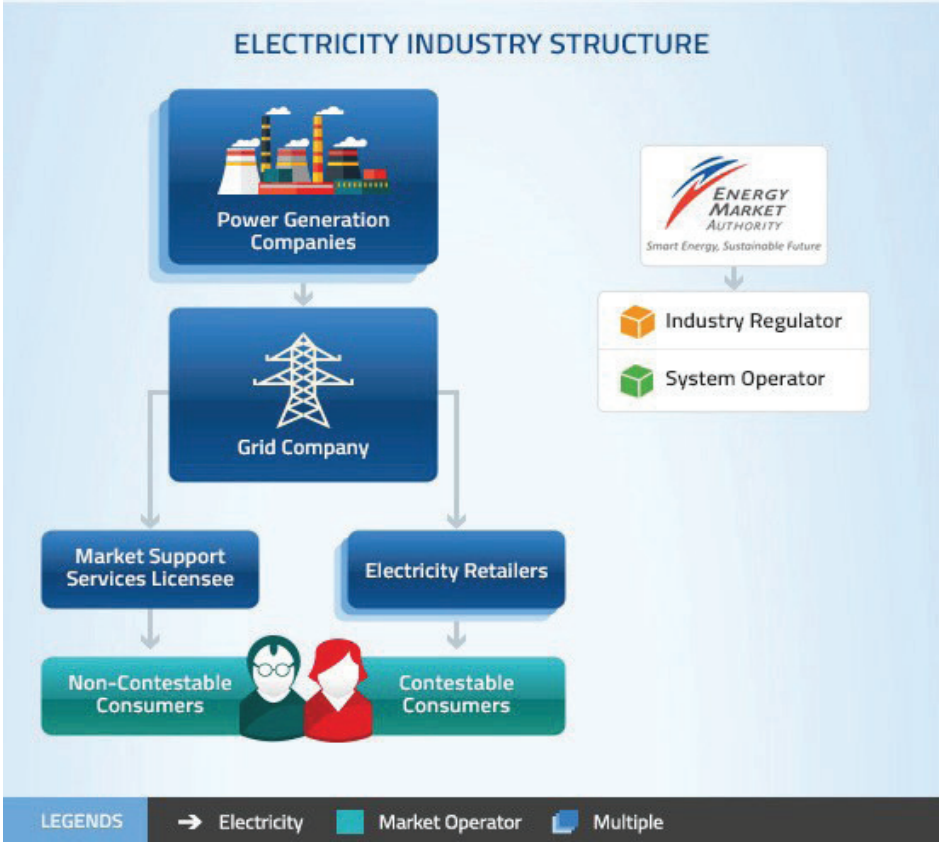
- the corresponding wholesale spot market price for energy, regulation and reserve.

The quantities and prices in the wholesale electricity market are based on price-quantity offers made by Generation Licensees on a half-hourly basis and demand forecasts prepared by the PSO. The overall least-cost dispatch schedule and market prices are determined half-hourly. The price offered in the market for the most expensive generation needed to meet the forecast demand in each half-hour period sets the system marginal price.

The Retail Market

The retail market has been progressively opened up by the EMA for competition since 2001. This is to allow consumers more options to manage their electricity bills. Eligible consumers can choose to buy electricity from Retail Licensees under customized price plans or from the wholesale electricity market at prices that fluctuate every half hour. Contestability for electricity consumers in the retail market has been introduced in phases. For a discussion on the liberalization of the retail market, please see "Summary of the Restructured Electricity Industry in Singapore — Contestability".

The figure below illustrates in detail the structure of the electricity industry in Singapore after its restructuring:



Source: Energy Market Authority

Note: In this diagram, SPPA is represented by the Grid Company, whereas SP Services is represented by the Market Support Services Licensee.

Electricity Generation and Electricity Retailing

Generation Licensees may produce and sell electricity in the wholesale electricity market, which is administered by the EMC. Such electricity may be purchased by SP Services, Retail Licensees and any person which is presently registered as a market participant in the electricity market in Singapore.

Vesting contracts were introduced on January 1, 2004. Vesting contracts are financial contracts between Generation Licensees and SP Services. These contracts commit Generation Licensees to selling specified quantities of electricity for various periods at prices stipulated by the EMA, and are designed to control the market power of such Generation Licensees.

Retail Licensees may buy electricity from the wholesale electricity market and sell electricity to contestable consumers.

Contestability

Contestability is the ability of an electricity consumer to choose the entity from whom it purchases its electricity requirements. Consumers who are contestable may purchase electricity from a Retail Licensee under a bilateral contract or purchase electricity directly from the wholesale electricity market or indirectly through a MSSL. The aim of contestability is to enable consumers to exercise choice and therefore benefit from competition.

Prior to April 1, 2001, SP Services was the sole supplier of electricity to electricity consumers in Singapore. On April 1, 2001, competition in the market for electricity supply in Singapore began to be phased in and Ultra High Tension consumers (those connected to SPPA's network at 230kV and above), Extra High Tension consumers (those connected to SPPA's network at 66kV) and High Tension consumers (those connected to SPPA's network at 22kV or 6.6kV) with electricity demand greater than 2MW were allowed to choose their Retail Licensee. On January 1, 2003, High Tension consumers with electricity demand equal to 2MW became contestable. On June 1, 2003, High Tension consumers with electricity demand of less than 2MW became contestable. Low Tension non-residential consumers (those connected to SPPA's network at 400V or 230V) with annual consumption of greater than 240MWh became contestable on August 24, 2003. Low Tension non-residential consumers with annual electricity consumption between 120MWh and 240MWh became contestable on December 21, 2003.

To allow more consumers to be contestable, the EMA lowered the annual electricity consumption contestability threshold, from 120MWh to 96MWh on April 1, 2014, and further to 48MWh on October 1, 2014. The contestability threshold was further lowered to 24MWh on July 1, 2015. This allowed more non-residential consumers to be eligible for retail contestability. In addition, for a non-residential consumer who has multiple electricity accounts at different locations in Singapore, he can choose to become contestable in respect of any of the locations if his aggregated demand meets the prevailing contestability threshold.

From April 1, 2018, the EMA commenced the soft launch of OEM where households and businesses in the Jurong area in Singapore can choose to buy electricity from a Retail Licensee. This will provide consumers with choice and flexibility in their electricity purchases. Consumers who wish to continue buying electricity from SP Services at the regulated tariff will keep to their existing arrangement. From the last quarter of 2018, OEM is expected to be extended to the rest of Singapore, allowing the remaining 1.4 million accounts (mainly households) to choose who they wish to buy electricity from. Those who prefer to buy electricity at the regulated tariff from SP Services can continue to do so.

Contestable consumers who purchase electricity from Retail Licensees generally receive bills from their Retail Licensees which itemize charges for electricity provided by Retail Licensees separately from charges for transmission and distribution services. Non-contestable consumers receive bills from SP Services acting in its capacity as MSSL, which do not separately itemize charges for electricity supply and for transmission and distribution services.

Consumers with main meters, to which sub-meters are connected at multi-unit premises such as offices and industrial buildings, can be contestable either under the En-Bloc Contestability Scheme or Demand Aggregation Scheme.

Under the En-Bloc Contestability Scheme, a master meter consumer can become contestable if all its sub-meter consumers give consent to aggregate their consumption using the main meter and purchase electricity as a group. Under the Demand Aggregation Scheme, a master meter consumer can carve out part of his common services load and the load of one or more consenting sub-meter consumers for contestability under a sub-metered account. The remaining tenants can continue to buy electricity from SP Services at the regulated tariff, or from Retail Licensees if they meet the contestability criteria.

Pooling and Settlement

In general, Generation Licensees and Retail Licensees are required to trade electricity through the wholesale electricity market and must register as market participants ("Market Participants") with the EMC. They each must also comply with the Electricity Market Rules, which have binding contractual force between Market Participants. The Electricity Market Rules stipulate how the electricity market in Singapore is operated and the responsibilities and liabilities of each class of Market Participant. In addition to the Generation Licensees and Retail Licensees, SPPA, SP Services and the EMC are Market Participants. Under the Electricity Market Rules, there exist various panels with competency to (i) monitor the adherence to the Electricity Market Rules by the participants of the electricity market in Singapore; (ii) resolve disputes relating to payments; (iii) propose and enact amendments to the Electricity Market Rules, subject to the EMA's approval; (iv) oversee the operations of the EMC; and (v) review the EMC's budgets. The EMA has the right to veto and the power to propose resolutions at meetings of these panels although it does not have other voting rights.

Market Participants have the choice of trading electricity either on the spot market or through bilateral contracts. The wholesale spot market, which is administered by the EMC, operates as follows: each Generation Licensee must submit to the EMC in advance its half-hourly bid prices for electricity to be generated by each of its generating units. The EMC ranks the bid prices of all the Generation Licensees for each half-hourly settlement period in ascending order. The generating unit with the lowest bid price is selected to produce electricity for sale until the cumulative capacity of all the selected electricity generating units is adequate to meet electricity demand. The bid price of the last, or marginal, generating unit needed to meet demand is the price at which all the Generation Licensees are paid for the sale of electricity in that settlement period irrespective of their bid prices. Thus, the price offered in the market for the most expensive generation needed to meet the forecast demand in each half-hour period sets the system wide marginal price.

From April 1, 2001 to December 31, 2002, the EMC provided pooling and settlement services to Generation Licensees and Retail Licensees participating in the SEP, and since January 1, 2003, the EMC provides such pooling and settlement services to Market Participants in the wholesale electricity market. The EMC computes the amount payable by electricity purchasers, including Retail Licensees, contestable electricity consumers who purchase electricity directly from the wholesale electricity market and SP Services, to Generation Licensees for the purchase of electricity. The EMC then collects payment from these electricity purchasers and makes payments to the Generation Licensees. The EMC acts as a clearing house for the collection of payments due from electricity purchasers participating in the wholesale electricity market and makes on-payments due to Generation Licensees.

Licensing Regime

The Electricity Act provides that no person shall, among others, engage in the transmission of electricity, or transmit electricity for or on behalf of a Transmission Licensee, unless he is authorized to do so by an electricity licence granted under the Electricity Act, or is exempted under the Electricity Act. The definition of the word "transmit" in the Electricity Act encompasses the distribution (as this word is used herein) of electricity. In determining whether to grant an electricity licence for a licensable activity, the EMA is required to consider, the ability of that person to finance the carrying on of the particular activity; the experience of that person in carrying on the activity, and its ability to perform the duties which would be imposed on that person under the Electricity Act and the electricity licence, if granted; whether the person is related to any Gas Transporter under the Gas Act, Chapter 116A of Singapore; whether or not that person is related to any Electricity Licensee or any person granted an exemption under the Electricity Act; and the functions and duties of the EMA under the Electricity Act.

No Transmission Licensee, Transmission Agent Licensee or MSSL shall be granted an electricity licence to carry out any activity other than the transmission of electricity, the transmitting of electricity for or on behalf of a Transmission Licensee or the provision of market support services, respectively. No Electricity Licensee who is authorized by his licence to operate any wholesale electricity market shall be granted an electricity licence to carry out any activity other than the operation of that market.

An electricity licence may include any restriction or condition (whether or not relating to the activities authorized by the electricity licence) which appears to the EMA to be requisite or expedient having regard to the functions and duties of the EMA under the Electricity Act. Such conditions may include, among others, requiring the Electricity Licensee to:

- pay to the EMA a fee on the grant of the electricity licence or to pay to the EMA periodic fees during the currency of the licence or both, of such amount as may be determined by or under the licence;

- enter into any agreement or arrangement on specified terms or on terms of a specified type relating to the Electricity Licensee's trading or operation or for the connection to or use of any electric line or plant owned or operated by the Electricity Licensee or the other party to the agreement or arrangement;

- observe, with such modification or exemption as may be approved by the EMA, specified codes of practice and the Electricity Market Rules;

- maintain specified financial accounting records and prepare financial accounts according to specified principles;

- appoint, at such intervals and on such terms as the EMA may direct, an independent technical auditor for the purposes specified in the condition;

- prepare for approval by the EMA guidelines regarding the procedures the Electricity Licensee must follow in the event of any public emergency;

- do or not to do such things as are specified in the electricity licence or are of a description so specified; and

- in relation to SPPA as a Transmission Licensee, carry out any work related to the development of the transmission system or the supply of electricity to any premises.

The electricity licence may also include conditions for:

- controlling or fixing prices to be charged for the services provided by a Transmission Licensee, MSSL or an Electricity Licensee authorized to operate any wholesale electricity market including the fixing of prices or the rate of increase or decrease in prices; the fixing of a maximum price or maximum rate of increase or minimum rate of decrease in the maximum price; the fixing of an average price or an average rate of increase or decrease in the average price; the setting of pricing policies or principles; the setting of prices with reference to a general price index, the cost of production, a rate of return on assets employed or any specified factor; and the setting of prices with reference to the quantity, location, period or other specified factors relevant to the activities authorized by the licence;

- in the case of a Transmission Licensee, MSSL or an Electricity Licensee authorized to operate any wholesale electricity market, imposing controls and restrictions, directly or indirectly, on the creation, holding or disposal of shares in the Electricity Licensee or its shareholders or of interests in the undertaking of the Electricity Licensee or any part thereof, and imposing restrictions on the carrying on by the Electricity Licensee of any trade or business which is not related to the activity which the Electricity Licensee is authorized by its electricity licence to carry on; and

- providing for any one or more of the conditions specified in the electricity licence to cease to have effect at such times and in such manner and circumstances as may be specified in or determined by or under the condition.

An electricity licence granted to any person shall not be transferable to any other person without the written approval of the EMA and any purported transfer is void. The EMA may modify the conditions of any electricity licence in accordance with the Electricity Act if the EMA is satisfied that the modification is requisite or expedient having regard to the functions and duties of the EMA under the Electricity Act.

Powers of the EMA to Control Electricity Licensees

The Minister may, on an application by the EMA, make an order under Section 29 of the Electricity Act in relation to any Electricity Licensee if such Electricity Licensee is unable (or likely to be unable) to pay its debts, a public emergency has occurred or where the Minister considers it in the public interest or in the interest of the security and reliability of electricity supply to the public. The orders which may be made by the Minister under Section 29 of the Electricity Act are (i) a special administration order; (ii) an order requiring the relevant Electricity Licensee to take any action or to do or not to do any act or thing as the Minister considers necessary; or (iii) an order appointing a person to advise the relevant Electricity Licensee in the proper conduct of such licensee's business. The decision of the Minister is final. A special administration order is an order which allows the EMA to directly or indirectly manage the relevant Electricity Licensee's affairs, business and property for the period during which the order is in force to secure one or more of the objectives stated in Section 28(2) of the Electricity Act, including the security and reliability of the supply of electricity to the public.

Where a special administration order has been made, the EMA may, at any time, whether or not the order is still in force, fix the remuneration and expenses to be paid by the relevant Electricity Licensee to the EMA. The EMA may also at any time (whether or not the appointment of the person has terminated) fix the remuneration and expenses to be paid by the relevant Electricity Licensee to any person appointed by the Minister under Section 29 of the Electricity Act to advise such Electricity Licensee in the proper conduct of such Electricity Licensee's business or undertaking.

The Minister may also make regulations for giving effect to Sections 28 and 29 of the Electricity Act, including regulations governing the transfer of the Electricity Licensee's business or undertaking; and where a special administration order is made, for applying, omitting or modifying the provisions of Part VIIIA of the Companies Act (which relate to the judicial management of companies).

The EMA has the power to issue directions to any person to ensure the reliability of the supply of electricity to the public or the security of the electricity system; to maintain the voltage or reactive flow of power through the transmission system; in the interests of public safety; or as may be necessary to enable the EMA to perform its functions and duties. Any failure to comply with such directions may be punished on conviction by a fine not exceeding S$10,000 or by imprisonment for a term not exceeding 12 months or both, and in the case of a continuing offence, to a further fine not exceeding S$250 for every day or part thereof that the offence continues. In addition, the Electricity Act provides that the duty to comply with any direction by the EMA is a duty owed to any person who may be affected by a contravention of the direction, the breach of which is actionable at the suit or instance of any person if that person sustained any loss or damage caused by a breach of the duty.

Section 14 of the Electricity Act provides that if the EMA is satisfied that an Electricity Licensee is contravening or has contravened or is likely to contravene any condition of its electricity licence, any code of practice or other standard of performance applicable to it, any provision of the Electricity Act (which would include its statutory duties under the Electricity Act), the EMA may direct the relevant Electricity Licensee to do or not do such things as may be specified by the EMA; require the relevant Electricity Licensee to provide a performance bond, guarantee or any other form of security on such terms and conditions as the EMA may determine; and require the relevant Electricity Licensee to pay a financial penalty of an amount not exceeding 10.0% of the annual turnover of that part of its business in respect of which it holds the relevant electricity licence (as determined from the relevant Electricity Licensee's latest audited accounts) or an amount not exceeding S$1 million, whichever is higher.

In addition to the various powers of the EMA described above, Section 13 of the Electricity Act allows the EMA to, if certain conditions are fulfilled, revoke or suspend the relevant Electricity Licensee's electricity licence for such period as the EMA thinks fit without compensation to such Electricity Licensee. The situations are if the EMA is satisfied that (a) the relevant Electricity Licensee has entered into liquidation (other than for the purpose of amalgamation or reconstruction); (b) any circumstance specified in the relevant Electricity Licensee's electricity licence which entitles the EMA to revoke or suspend such licence exists; (c) the relevant Electricity Licensee has not complied with any direction or requirement issued by the EMA pursuant to Section 14 of the Electricity Act; (d) the relevant Electricity Licensee is no longer in a position to operate in conformity with the Electricity Act or the terms and conditions of its electricity licence; or (e) the public interest or security of Singapore so requires. In addition to the revocation or suspension of the relevant electricity licence, in the case of items (b) or (c) above, Section 13 of the Electricity Act also allows the EMA to require the relevant Electricity Licensee to pay a financial penalty of an amount not exceeding 10.0% of the annual turnover of that part of its business in respect of which it holds the relevant electricity licence (as determined from the relevant Electricity Licensee's latest audited accounts) or an amount not exceeding S$1 million, whichever is higher.

From a competition perspective, the EMA has various powers under Section 59 of the Electricity Act to enforce the prohibitions set out in Part VII of the Electricity Act (as described below). Section 50 of the Electricity Act prohibits any agreements, decisions or concerted practices which have as their object or effect the prevention, restriction or distortion of competition in any wholesale electricity market or the retail electricity market in Singapore. Section 50 (4) of provides that any such agreement or decision will be void. The EMA may also impose such directions upon any person as it considers appropriate to bring any infringement to an end where it makes the decision that Section 50 has been infringed. Similarly, Section 51 of the Electricity Act prohibits any conduct on the part of one or more persons which amounts to an abuse of a dominant position in any wholesale electricity market or retail electricity market in Singapore if it may affect trade within Singapore. Where the EMA makes a decision to the effect that any person has infringed Section 51 of the Electricity Act, it may direct such person to modify or cease any such conduct. In addition to such directions, where a decision is made to the effect that either prohibition has been infringed, Section 59 of the Electricity Act further allows the EMA to require the relevant person to pay a financial penalty of an amount not exceeding 10.0% of the annual turnover of such person's business in Singapore (as determined from such person's latest audited accounts) or an amount not exceeding S$1 million, whichever is higher, in addition to requiring the provision of a performance bond, guarantee or any other form of security on such terms and conditions as the EMA may determine.

Under Section 30B of the Electricity Act, each of SPPA and SPPG is required to notify the EMA in writing if any person acquires equity interest in SPPA or SPPG respectively, whether through a series of transactions over a period of time or otherwise, that would result in that person holding 5% or more but less than 12% of the total equity interest in SPPA or SPPG respectively.

Further, pursuant to Section 30B of the Electricity Act, no person shall, whether through a series of transactions over a period of time or otherwise, and whether alone or together with his associates (as defined in the Electricity Act), (a) hold 12% or more of the total equity interest in SPPA or SPPG or be in a position to control 12% or more of the voting power in SPPA or SPPG, or (b) hold 30% or more of the total equity interest in SPPA or SPPG or be in a position to control 30% or more of the voting power in SPPA or SPPG, in each case except with the prior written approval of the EMA.

No person shall, whether through a series of transactions over a period of time or otherwise, become an indirect controller (as defined in the Electricity Act) of SPPA or SPPG, except with the prior written approval of the EMA.

The EMA may grant its approval to the control or acquisition of an equity interest in SPPA or SPPG at or above the prescribed threshold if the EMA is satisfied that (a) the person is a fit and proper person; (b) having regard to the person's likely influence, SPPA or SPPG (as the case may be) will continue to conduct its business prudently and comply with the provisions of the Electricity Act; and (c) it is in the public interest to do so.

No person may acquire the business of SPPA or SPPG conducted pursuant to their respective electricity licences as a going concern except with the EMA's prior written approval. The EMA may grant its approval to such acquisition if the EMA is satisfied that (a) the person acquiring the relevant business is a fit and proper person; (b) the acquisition will not affect the security and reliability of the supply of electricity to the public; and (c) it is in the public interest to do so.

Any approval by the EMA may be granted subject to such conditions as the EMA considers appropriate, and any such conditions imposed by the EMA shall have effect notwithstanding the provisions of any written law or anything contained in SPPA's constitution or SPPG's constitution.

No person may be appointed as the chief executive officer, director or chairman of the board of directors of SPPA or SPPG except with the EMA's prior written approval. If any person is appointed without the EMA's approval, the EMA may direct SPPA or SPPG (as the case may be) to remove such person as its chief executive officer, director or chairman of its board of directors, as the case may be, notwithstanding the provisions of any other written law or anything contained in SPPA's constitution or SPPG's constitution.

Under Section 16(1) of the Electricity Act, the EMA may issue or approve codes of practice for the regulation of activities and conduct in the electricity industry. Currently, such codes of practice issued by the EMA include the Transmission Code, the Market Support Services Code, the Regulated Supply Service Code and the Metering Code.

SPPA's Transmission Licence and Tariff Regulatory Framework for the Electricity T&D Business

For a discussion of SPPA's Transmission Licence and SPPA's role as a Transmission Licensee in the electricity market in Singapore, see "Business of SP Group — Transmission and Distribution Business in Singapore — SPPA's Electricity Licenses — Electricity Transmission Licence". For a description of SPPA's current use of system charges and a detailed discussion of the manner in which SPPA's use of system charges are regulated by the EMA, see "Business of SP Group — Transmission and Distribution Business in Singapore — Electricity T&D Business — Tariff Regulatory Framework for the Electricity T&D Business".

Market Support Services Licence and SP Services' Tariff Regulatory Framework

For a discussion of SP Services' Market and Support Services Licence and its role in the electricity market in Singapore, see "Business of SP Group — Market and Support Services Licence". For a description of SP Services' current tariffs and a detailed discussion of the manner in which SP Services' tariffs are regulated by the EMA, see "Business of SP Group — Market Support Services Business — Market Support Services Business Framework — Regulated Business".

GAS INDUSTRY IN SINGAPORE

Overview of the Singapore Gas Industry

The piped gas industry had traditionally been vertically-integrated and owned by the Singapore Government. The PUB was formed in 1963 to undertake the functions of supplying water, electricity and piped gas to the population of Singapore.

On October 1, 1995, the Singapore Government incorporated the electricity and piped gas undertakings of the PUB into Singapore Power Limited. This marked the first reform of the vertically-integrated electricity and gas industries to facilitate competition. The Singapore Government's intention was to gradually introduce competition so that Singapore would have a competitive electricity and gas market with investment, production and pricing decisions determined by market forces rather than through central planning.

In 2000, the Singapore Government decided to restructure the gas industry to put in place a market framework that separates the competitive functions of production and retail of town gas as well as the importation and retail of natural gas, from the monopolistic function of gas transportation. Under this market framework, the individual Gas Shipper Licensees entered into bilateral contracts (known as Onshore Transportation Agreement) with Gas Transporter to ship gas.

The EMA was established in April 1, 2001 pursuant to the EMA Act as an independent regulator overseeing, among others, the gas industry. The functions and duties of the EMA (as set out in the Gas Act) include:

- to protect the interests of end users with regard to the prices and other terms for the supply of gas, the reliability, availability and continuity of supply of gas, and the quality of gas supply services provided;
- to protect the public from dangers arising from the production, processing, storage, conveyance, shipping, supply or use of gas;
- to secure that Gas Licensees whose prices are controlled by the EMA are able to provide an efficient service and maintain financial viability;
- to promote the efficient use of gas by end users;
- to promote competition in the supply of natural gas;
- to perform the functions of economic, technical and safety regulator for the gas industry in Singapore;
- to advise the Singapore Government on all matters relating to the production, processing, storage, conveyance, shipping, supply or use of gas; and
- to do such other things as are required under the Gas Act and to take such steps as are necessary or expedient for the effective discharge of its functions and duties under the Gas Act.

Gas Sales and Consumption in Singapore

The following table sets forth the aggregate amount of town gas transmitted and distributed for the different end user segments for the periods indicated:

Town Gas transmitted and distributed (bbtu)	**Calendar Year**		
End User segment	**2015**	**2016**	**2017**
Domestic	2,428	2,492	2,543
Non-Domestic	3,357	3,447	3,449
Total	5,785	5,939	5,992

Source: Singapore Department of Statistics

The following table sets forth the aggregate amount of natural gas transmitted and distributed for PowerGas' gas transmission and distribution network:

	Calendar Year		
Natural Gas transmitted and distributed (bbtu)	**2015**	**2016**	**2017**
Transmission Network	405,456	416,742	428,462
Distribution Network	8,627	8,540	9,287

The Restructured Gas Market

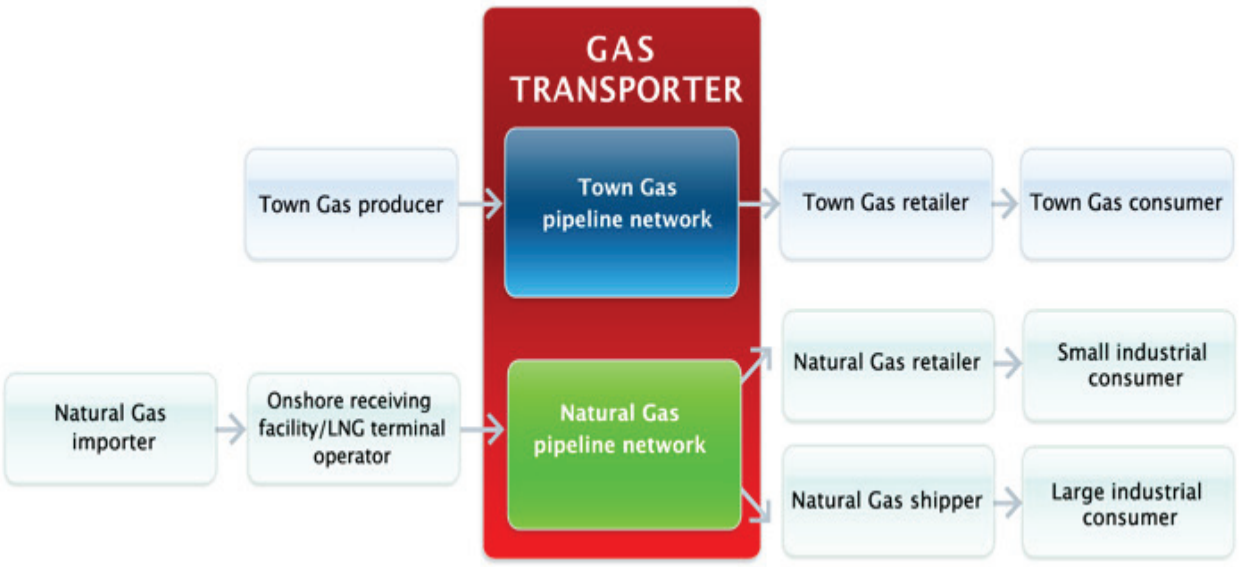
Following the restructuring in 2000, with natural gas becoming the dominant fuel for electricity generation in Singapore, the gas industry underwent further restructuring to support the electricity industry. A set of rules called the Gas Network Code or GNC was established in September 15, 2008 for the restructured gas market to govern the activities of gas transportation and providing open and non-discriminatory access to the onshore gas pipeline network.

The following licences are required for entities to participate in the restructured gas market:

- Licence to convey gas (granted under Section 7(3)(a) of the Gas Act)
- Licence to convey gas for or on behalf of a Gas Transporter Licensee (granted under Section 7(3)(b) of the Gas Act)
- Licence to manage or operate an LNG terminal (granted under Section 7(3)(f) of the Gas Act)
- Licence to manage or operate an onshore receiving facility (granted under Section 7(3)(e) of the Gas Act)
- Licence to import gas (granted under Section 7(3)(h) of the Gas Act)
- Licence to ship gas (granted under Section 7(3)(c) of the Gas Act)
- Licence to retail gas (granted under Section 7(3)(d) of the Gas Act)

PowerGas became the sole Gas Transporter Licensee in Singapore that owns and manages the gas pipeline network for conveying natural gas and town gas. As the Gas Transporter Licensee, it provides open and non-discriminatory access to the gas pipeline network. The Gas Transporter Licensee is not allowed to participate in the gas import and retail businesses, see "Business of SP Group — Gas T&D Business — Power Gas' Gas Licences — Gas Transport Agent Licence" for details.

The bilateral Onshore Transportation Agreements previously signed between the Gas Shipper Licensees and the Gas Transporter Licensee ceased when the GNC regime came into effect. As the gas transport business was separated from the competitive business of gas import and retail, SembCorp Gas Pte Ltd, which had diversified interests in gas transport, import and retail businesses, exited the gas transport business and transferred its gas pipelines to PowerGas via a statutory transfer under Section 98 of the Gas Act on September 15, 2008. The structure of the restructured gas market is shown in the following diagram.



Source: Energy Market Authority

Note: In this diagram, PowerGas is represented by the Gas Transporter.

At present, the gas network in Singapore consists of two separate gas pipeline networks namely, the town gas pipeline network and the natural gas pipeline network. Town gas is used mainly for cooking and heating by domestic and commercial customers. Natural gas is mainly used for electricity generation and industrial feedstock. Town gas is produced by CityGas whilst natural gas is imported via licensed Gas Importer Licensees. Traditionally, most of the natural gas is imported into Singapore from Malaysia and Indonesia via offshore pipelines.

Since May 2013, Singapore's first liquefied natural gas ("LNG") terminal developed by Singapore LNG Corporation Pte Ltd started operation and Singapore began importing LNG to diversify and secure its energy sources. The LNG terminal had two storage tanks and an initial throughput capacity of 3.5 million tonnes per annum ("Mtpa"). A third tank and additional regasification facilities were completed in January 2014, increasing the throughput capacity of the terminal to 6 Mtpa, and a secondary jetty was added to the operations in March 2014. The fourth storage tank is expected to be completed by 2018 will bring the terminal's send-out capacity from the current 6 Mtpa to around 11 Mtpa. Singapore plans to become a key trading hub for LNG in the region. A valid LNG terminal operator licence from EMA is required to operate an LNG terminal.

The gas pipeline network consists of more than 200 km of high-pressure transmission pipelines for the transportation of natural gas and more than 3,000 km of distribution pipelines, primarily for the distribution of town gas.

Under the natural gas pipeline network, there are currently two distinct gas transmission networks, namely Transmission Network 1 and Transmission Network 2. Transmission Network 1, operating at a maximum pressure of 40 barg, receives gas from Indonesia. The receiving station on this network is operated by SembCorp Gas Pte Ltd who owns the Onshore Receiving Facility ("ORF"). Transmission Network 2 is subdivided into two segments. The higher pressure segment is designed to operate at maximum pressure of 40 barg and takes gas delivered from Indonesia at Sakra ORF and LNG Terminal. The lower pressure segment of Transmission Network 2 operates at a maximum pressure of 28 barg and receives gas from Indonesia at the Sakra ORF in the south of the network and gas from Malaysia at Attap Valley ORF in the north of the network. Both the ORFs on Transmission Network 2 are owned and operated by PowerGas (refer to "Business of SP Group — Transmission and Distribution Business in Singapore — Gas T&D Business — Gas Transmission and Distribution Network Assets — Natural Gas Transmission and Distribution Network" for details). The ORF operator owns and manages the receiving and control of natural gas in the ORF prior to injection into the gas pipeline network for conveyance into Singapore. These entities must have a valid ORF operator licence issued by EMA before engaging in such activities. Currently, the operation of ORFs owned by PowerGas is licensed under the Gas Transporter Licence.

Currently, some 70% of natural gas supply is imported in gaseous form into Singapore via offshore pipelines from Malaysia and Indonesia and the remaining supply is in liquid form via tankers from diversified sources such as Australia, the US and Qatar. Gas Importer Licensees are entities that are permitted to import natural gas into Singapore. They must have a valid licence to import gas issued by EMA (under Section 7(3)(h) of the Gas Act) before engaging in gas import activities.

Gas Retailer Licensees are entities that supply gas to retail end users. A Gas Retailer Licensee can either arrange for the conveyance of gas directly with a Gas Transporter Licensee as a Gas Shipper Licensee or engage a Gas Shipper Licensee to arrange for the conveyance of gas to its retail end users. These entities must have a valid licence to retail gas issued by EMA (under Section 7(3)(d) of the Gas Act) before engaging in gas retailing activities.

Gas Shipper Licensees are entities that enter into a contract with the Gas Transporter Licensees to convey gas through the gas pipeline network. These entities must have a valid licence to ship gas issued by EMA (under Section 7(3)(c) of the Gas Act) before engaging in gas shipping activities.

The table below provides details of the sources of natural gas, as well as the EMA-licensed Gas Importer Licensees, Gas Shipper Licensees and Gas Retailer Licensees.

Source Country/ Location	Gas Importer Licensee	Gas Shipper Licensee	Gas Retailer Licensee
Malaysia	Senoko Energy Pte Ltd	1. City Gas Pte Ltd	
Malaysia	Keppel Gas Pte Ltd	2. Gas Supply Pte Ltd 3. Keppel Gas Pte Ltd	1) SembCorp Gas Pte Ltd 2) City Gas Pte Ltd
Indonesia, West Natuna	Sembcorp Gas Pte Ltd	4. YTL PowerSeraya Ltd 5. Senoko Gas Supply Pte Ltd	3) City – OG Gas Energy Services Pte Ltd 4) Pavilion Gas Pte Ltd
Indonesia, South Sumatra	Gas Supply Pte Ltd	6. Sembcorp Gas Pte Ltd 7. PacificLight Power Pte Ltd	5) Keppel Gas Pte Ltd 6) Senoko Gas Supply Pte Ltd
Australia, USA and Qatar (LNG)	1) Pavilion Gas Pte. Ltd 2) Shell Eastern Trading (Pte) Ltd. 3) Shell Gas Marketing Pte Ltd	8. Tuas Power Generation Pte Ltd 9. Tuaspring Pte Ltd 10. Pavilion Gas Pte Ltd 11. Shell Eastern Trading Pte Ltd	7) YTL PowerSeraya Pte Ltd 8) Tuas Power Supply Ltd 9) Union Gas Pte Ltd 10) GashubUnited Utility Pte Ltd 11) Sembcorp Fuels (Singapore) Pte Ltd

Source: Energy Market Authority

CityGas is currently the sole producer and retailer of town gas in Singapore.

The end users of gas are classified into the following two categories depending on the arrangement for conveyance of gas to them:

- Large end users are typically electricity generation companies and large industrial users of natural gas that take gas from the gas transmission network. They will make arrangements with either the Gas Transporter Licensee or a Gas Shipper Licensee for the conveyance of gas to their premises; and

- Retail end users are gas users who purchase gas from Gas Retailer Licensees of natural gas or town gas. The retail market comprises the residential segment and commercial and industrial segments. The Gas Retailer Licensees will arrange with the Gas Transporter Licensee for the conveyance of gas to the retail end users. Retail end users typically take gas from the gas mains network and use the gas for cooking and heating purposes, e.g. households and small non-domestic users of gas.

The Gas Act

PowerGas' Duty to connect

Pursuant to the Gas Act, PowerGas is required to, upon the request of the owner or occupier of any premises, provide and install a gas service isolation valve, provide and lay a gas service pipe from the relevant gas main to the gas service isolation valve and connect such premises to the relevant gas main. PowerGas may recover the costs of providing and laying the gas isolation valve, providing and laying the gas service pipe and making the connection from the owner or occupier of the premises, as the case may be, to the extent that the costs have not been previously recovered from any other person. Where any premises have been connected to a relevant gas main under the Gas Act, any written law which has been repealed or any arrangement entered into by the owner or occupier of the premises prior to the date of commencement of Section 10 of the Gas (Amendment) Act 2007, PowerGas is required to maintain the connection until such time as it is no longer required by the owner or occupier.

PowerGas is not required to connect, or maintain a connection of, a relevant gas main to any premises if it is unable to do so by circumstances beyond its control or if there exist circumstances, which by reason of PowerGas' doing so, would involve a danger to the public. If the connection, or the maintenance of the connection, will result in a new or increased supply of gas which cannot be made without the laying of a new, or the enlargement of an existing, gas main or the undertaking of other works related to the conveyance of gas to those premises, PowerGas may refuse to make or maintain the connection until such time as the owner or occupier enters into an agreement with PowerGas for the payment of a reasonable amount having regard to be costs to be incurred by PowerGas in laying or enlarging the relevant gas main or undertaking such other works and the extent to which such costs can be recovered from other persons.

Licensing Regime

The Gas Act provides that no person shall, among others, engage in the conveyance of gas, or convey gas for or on behalf of a Gas Transporter Licensee, unless he is authorized to do so by a gas licence granted under the Gas Act, or is exempted under the Gas Act. The definition of the word "convey" in the Gas Act encompasses the distribution (as this word is used herein) of gas. In determining whether to grant a gas licence for a licensable activity, the EMA is required to consider, among others, the ability of that person to finance the carrying on of the particular activity; the experience of that person in carrying on the activity, and its ability to perform the duties which would be imposed on that person under the Gas Act and the gas licence, if granted; whether or not that person is related to any Gas Licensee or any person granted an exemption under the Gas Act; and the functions and duties of the EMA under the Gas Act.

A licence to transport gas (granted under Section 7(3)(a) of the Gas Act) shall not be granted to a Gas Retailer Licensee, Gas Shipper Licensee or town gas producer, or an Electricity Licensee that is authorized to generate, retail, import or export electricity or trade in any wholesale electricity market. A Gas Transport Agent Licensee's licence shall not be granted to a Gas Retailer Licensee, Gas Shipper Licensee or town gas producer. A Gas Shipper Licensee's licence shall not be granted to a Gas Transporter Licensee or Gas Transport Agent Licensee. A Gas Retailer Licensee's licence shall not be granted to a Gas Transporter Licensee or Gas Transport Agent Licensee.

A gas licence may include any restriction or condition (whether or not relating to the activities authorized by the gas licence) which appears to the EMA to be requisite or expedient having regard to the functions and duties of the EMA under the Gas Act. Such conditions may include, among others:

- restricting the activities which the Gas Licensee is permitted to carry out;
- requiring payments to be made to the EMA on the grant, or during the currency, of a gas licence or both, of such amount as may be determined by or under the gas licence;
- requiring the Gas Licensee to furnish specified persons or the EMA in such manner and at such times as may be specified with such information as appears to the EMA to be requisite or expedient for the purpose of facilitating the exercise by those persons or the EMA of the functions or duties assigned to them or as may be reasonably required for that purpose;
- requiring the Gas Licensee to furnish to the EMA financial information including regulatory accounts in respect of such period and on such basis as may be specified;
- controlling, limiting or restricting the ownership or control, directly or indirectly, of the Gas Licensee; the creation, holding or disposal of any interest in shares in the Gas Licensee or in any person holding shares in the Gas Licensee; or any other interest in the licensed gas business or undertaking of the Gas Licensee or any part thereof;
- requiring the Gas Licensee to comply with any direction, determination, order or decision of the EMA as to such matters specified in its gas licence or are of a description so specified;

- requiring the Gas Licensee to do or not to do such things as are specified in its gas licence or are of a description so specified, except in so far as the EMA consents to its doing or not doing them, as the case may be;

- requiring the Gas Licensee to comply with any code of practice and standard of performance applicable to the Gas Licensee;

- providing for the determination by the EMA of such questions arising under the gas licence, or under any document specified or described in the gas licence;

- imposing requirements by reference to designation, acceptance or approval by the EMA;

- providing for references in the conditions of the gas licence to any document specified or described in the gas licence to operate as references to that document as revised or re-issued from time to time;

- providing that the conditions of the gas licence shall have effect or cease to have effect at such times and in such circumstances as may be determined by or under the conditions;

- requiring the Gas Licensee to provide a performance bond, guarantee or any other form of security on such terms and conditions as the EMA may determine; and

- where the Gas Licensee is not incorporated or does not have a place of business in Singapore, requiring the Gas Licensee to appoint, and notify the EMA of, a person who has a residential address or a place of business in Singapore to accept service on behalf of the Gas Licensee of any notice, order or document required or authorized by the Gas Act to be given or served on the Gas Licensee.

A gas licence granted to any person shall not be transferable to any other person without the written approval of the EMA and any purported transfer is void. The EMA may modify the conditions of any gas licence in accordance with the Gas Act if the EMA is satisfied that the modification is requisite or expedient having regard to the functions and duties of the EMA under the Gas Act.

Powers of the EMA to Control Gas Licensees

The Minister may, on an application by the EMA, make an order under Section 34 of the Gas Act if PowerGas is unable (or likely to be unable) to pay its debts, a public emergency has occurred or where the Minister considers it in the public interest or in the interest of the security and reliability of the conveyance of gas by PowerGas to consumers' premises. The orders which may be made by the Minister under Section 34 of the Gas Act are (i) a special administration order; (ii) an order requiring PowerGas to take any action or to do or not to do any act or thing as the Minister considers necessary, or (iii) an order appointing a person to advise PowerGas in the proper conduct of PowerGas' business. The decision of the Minister is final. A special administration order is an order which allows the EMA to directly or indirectly manage PowerGas' affairs, business and property for the period during which the order is in force to secure one or more of the following purposes:

- the security or reliability of the conveyance of gas by PowerGas to consumers' premises;

- PowerGas' survival, or the survival of the whole or part of PowerGas' business, for which PowerGas is authorized by its Gas Transporter Licence to carry on, as a going concern;

- the transfer to another company, or (with respect to different parts of the area to which PowerGas' Gas Transporter Licence relates, or different parts of its business or undertaking) to two or more different companies, as a going concern, of so much of PowerGas' undertaking as it is necessary to transfer in order to ensure that the functions and duties which have been vested in PowerGas by virtue of its Gas Transporter Licence may be properly carried out; or

- the carrying out of the functions and duties which have been vested in PowerGas pending the making of the transfer and the vesting of those functions and duties in other company or companies.

Where a special administration order has been made, the EMA may, at any time, whether or not the order is still in force, fix the remuneration and expenses to be paid by PowerGas to the EMA. The EMA may also at any time (whether or not the appointment of the person has terminated) fix the remuneration and expenses to be paid by PowerGas to any person appointed by the Minister under Section 34 of the Gas Act to advise PowerGas on the proper conduct of PowerGas' business or undertaking.

The Minister may also make regulations for giving effect to Sections 33 and 34 of the Gas Act, including regulations governing the transfer of the Gas Licensee's business or undertaking; and where a special administration order is made, for applying, omitting or modifying the provisions of Part VIIIA of the Companies Act (which relate to the judicial management of companies).

The EMA has the power to issue directions to any Gas Licensee or person for the purpose of ensuring the security or reliability of the conveyance of gas to consumers' premises; in the interests of public safety; or as may be necessary to enable the EMA to perform its functions and duties prescribed in Section 3 of the Gas Act. Any failure to comply with such directions may be punished on conviction by a fine not exceeding S$10,000 or by imprisonment for a term not exceeding 12 months or both, and in the case of a continuing offence, to a further fine not exceeding S$250 for every day or part thereof that the offence continues. In addition, the Gas Act provides that the duty to comply with any direction by the EMA is a duty owed to any person who may be affected by a contravention of the direction, the breach of which is actionable at the suit or instance of that person if that person sustained any loss or damage caused by a breach of the duty.

Section 19 of the Gas Act provides that if the EMA is satisfied that any Gas Licensee is contravening, has contravened or is likely to contravene any condition of its gas licence, any code of practice or other standard of performance applicable to it, any provision of the Gas Act (which would include its statutory duties under the Gas Act) or any direction issued by the EMA or otherwise applicable to it, the EMA may direct the relevant Gas Licensee to do or not do such things as may be specified by the EMA; require the relevant Gas Licensee to provide a performance bond, guarantee or other form of security on such terms and conditions as the EMA may determine; and require the relevant Gas Licensee to pay a financial penalty of an amount not exceeding 10.0% of that part of its business in respect of which it holds the relevant gas licence (as determined from the relevant Gas Licensee's latest audited accounts) or an amount not exceeding S$1 million, whichever is higher.

In addition to the various powers of the EMA described above, Section 18 of the Gas Act allows the EMA to, if certain conditions are fulfilled, revoke the relevant Gas Licensee's gas licence or suspend its gas licence for such period as the EMA thinks fit without any compensation to the relevant Gas Licensee. The situations are if the EMA is satisfied that (a) the relevant Gas Licensee has entered into liquidation (other than for the purpose of amalgamation or reconstruction); (b) the relevant Gas Licensee has made any arrangement, compromise or composition with any of its creditors; (c) any circumstance specified in the relevant Gas Licensee's gas licence which entitles the EMA to revoke or suspend such licence exists; (d) the relevant Gas Licensee has not complied with any direction or requirement issued by the EMA pursuant to Section 19 of the Gas Act; or (e) the public interest or security of Singapore so requires. In addition to the revocation or suspension of the relevant Gas Licensee's gas licence, in the case of items (c) or (d) above, Section 18 of the Gas Act also allows the EMA to require the relevant Gas Licensee to pay a financial penalty of an amount not exceeding 10.0% of the annual turnover of that part of its business in respect of which it holds the relevant gas licence (as determined from the relevant Gas Licensee's latest audited accounts) or an amount not exceeding S$1 million, whichever is higher, in addition to any sanction which may have already been imposed on it pursuant to Section 19 of the Gas Act.

From a competition perspective, the EMA has various powers under Section 78 of the Gas Act to enforce the prohibitions set out in Part IX of the Gas Act (as described below). Section 69 of the Gas Act prohibits any agreements, decisions or concerted practices which have as their object or effect the prevention, restriction or distortion of competition in any gas market in Singapore. Subsection 69(4) provides that any such agreement or decision will be void. The EMA may also impose such directions upon any person as it considers appropriate to bring any infringement to an end where it makes a decision that Section 69 has been infringed. Similarly, Section 70 of the Gas Act prohibits any conduct on the part of one or more persons which amounts to an abuse of a dominant position in any gas market in Singapore if it may affect trade within Singapore. Where the EMA makes a decision to the effect that any person has infringed Section 70 of the Gas Act it may direct such person to modify or cease such conduct. In addition to such directions, where a decision is made to the effect that either prohibition has been infringed, Section 78 of the Gas Act further allows the EMA to require the relevant person to pay a financial penalty of an amount not exceeding 10.0% of the annual turnover of such person's business in Singapore (as determined from its latest audited accounts) or an amount not exceeding S$1 million, whichever is higher, in addition to requiring the provision of a performance bond, guarantee or other form of security on such terms and conditions as the EMA may determine.

Under Section 63B of the Gas Act, any person who becomes a substantial shareholder of PowerGas or SPPG is required to notify the EMA in writing within 5 days after becoming a substantial shareholder.

Further, pursuant to Section 63B of the Gas Act, no person shall, whether alone or together with his associates (as defined in the Gas Act), (a) hold 12% or more of the total equity interest in PowerGas or SPPG, or be in a position to control 12% or more of the voting power in PowerGas or SPPG, or (b) hold 30% or more of the total equity interest in PowerGas or SPPG or be in a position to control 30% or more of the voting power in PowerGas or SPPG, in each case except with the prior written approval of the EMA.

No person shall become an indirect controller (as defined in the Gas Act) of PowerGas or SPPG, except with the prior written approval of the EMA.

The EMA may grant its approval to the acquisition of an equity interest or voting power in PowerGas, or SPPG at or above the prescribed threshold if the EMA is satisfied that (a) the person is a fit and proper person; (b) having regard to the person's likely influence, PowerGas or SPPG (as the case may be) will continue to conduct its business prudently and comply with the provisions of the Gas Act; and (c) it is in the public interest to do so.

No person may acquire the business of PowerGas or SPPG conducted pursuant to their respective gas licences as a going concern except with the EMA's prior written approval. The EMA may grant its approval to such acquisition if the EMA is satisfied that (a) the person acquiring the relevant business is a fit and proper person; (b) the acquisition will not affect the security or reliability of the conveyance of gas to consumers' premises; and (c) it is in the public interest to do so.

Any approval granted by the EMA may be made subject to such conditions as the EMA considers appropriate, and any such conditions imposed by the EMA shall have effect notwithstanding the provisions of any written law or anything contained in PowerGas' constitution or SPPG's constitution.

No person may be appointed as the chief executive officer, director or chairman of the board of directors of PowerGas or SPPG except with the EMA's prior written approval. If any person is appointed without the EMA's approval, the EMA may issue a direction to PowerGas or SPPG (as the case may be) to remove such person as its chief executive officer, director or chairman of its board of directors, as the case may be, notwithstanding the Companies Act or anything contained in PowerGas' constitution or SPPG's constitution.

The Gas Network Code

The EMA has, pursuant to Section 61B of the Gas Act, issued the GNC for the use and operation of a gas pipeline network. Pursuant to Section 61D of the Gas Act, the GNC shall be deemed to be, and shall operate as, a binding contract between PowerGas and each relevant Gas Shipper Licensee. PowerGas and each relevant Gas Shipper Licensee shall be deemed to have agreed to observe and perform the provisions of the GNC as far as they are applicable.

PowerGas and all relevant Gas Shipper Licensees are required to not do any thing which, or not omit to do any thing the omission of which, has or is likely to have an adverse effect on or compromise the safety or efficiency (including economic efficiency) of a gas pipeline network or any of its operations or the security or reliability of the conveyance of gas by means of a gas pipeline network.

Key Areas of the GNC

The following is a general summary of the key areas of the GNC. It is for general information only and does not purport to be a comprehensive description or exhaustive statement of the applicable provisions of the GNC. Capitalized terms used below shall, unless otherwise stated in this Offering Circular, have the meanings attributed to them in the GNC.

The GNC sets out the rules and procedures for the transportation of gas through PowerGas' gas pipeline network.

A Shipper will have to apply for and be registered as holding capacity rights from PowerGas to be entitled to have gas transported through the gas pipeline network. Such capacity right may be in the form of either a Firm Capacity Right or a Non-Firm Capacity Right. Shippers with Firm Capacity Rights must pay both capacity charges and usage charges, but PowerGas is required to convey gas in accordance with such Shipper's accepted nominations pursuant to such Firm Capacity Rights. In respect of Non-Firm Capacity Rights, there are no capacity charges, the usage charges are higher and PowerGas need only convey gas to the extent that PowerGas is of the opinion that it can make capacity available. The duration for each firm capacity right shall be no shorter than one year. Firm Capacity Rights may be traded and are also subject to reduction by PowerGas if not utilized and such capacity is required to satisfy an application for Firm Capacity Rights by another Shipper.

Where there is insufficient available uncontracted capacity to accommodate the Shippers' demands, the Shippers may request that PowerGas initiate the Open Season process. In an Open Season process, which can also be initiated by PowerGas under certain circumstances, PowerGas will invite Shippers to submit applications for new Firm Capacity Rights and/or offer to surrender their existing Firm Capacity Rights. PowerGas will then allocate Registered Firm Capacity Rights and where there is insufficient capacity, will do so on a first come first serve basis. Where there is insufficient capacity, PowerGas can, in accordance with the procedure set out in the GNC, notify the relevant Shippers that it proposes to enhance the transmission network to provide for new capacity together with other information including the conditions required in order for PowerGas to make the proposed new capacity available. Following acceptance by the relevant Shippers, PowerGas will issue to such Shippers proposed capacity certificates. These proposed capacity certificates will be replaced with firm capacity certificates once all conditions specified by PowerGas in order to make the proposed new capacity available have been satisfied.

Shippers inform PowerGas of the volumes of gas they intend to inject into the system and the volumes of gas that their consumers require to consume through the submission of initial nominations by 10am on a day-ahead basis. Shippers may also submit standing nominations and renominations may be permitted under certain circumstances.

At injection or offtake points where more than one Shipper is responsible for gas flows, the Shippers at the same injection or offtake points can appoint allocation agents pursuant to an allocation agreement to determine the allocation of the quantities of gas injected or offtaken. In the event that there is no allocation agreement in place, the GNC provides for default allocation mechanisms.

It is the responsibility of Shippers to ensure that enough gas is injected at the relevant injection points to deliver to their consumers at the relevant offtake points. The GNC provides for variance payments to be made if there is a variance between a Shipper's injection and offtake quantities, after adjusting for the shrinkage factor. The shrinkage factor accounts for transportation losses over the gas pipeline network. Currently, the administered commodity price for the purposes of determining variance payments is set at 110% of the Base Price (which is based on the corresponding monthly price of High Sulfur Fuel Oil quoted in Platt's Oilgram Price Report). In order to minimize Shippers' financial exposure, commodity variances are aggregated on a daily basis and commodity variance quantities may be traded between shippers. The GNC also levies a nomination divergence charge to penalise shippers if the actual quantity of their offtaken gas differs from their scheduled quantity.

PowerGas is also entitled to incentive payments, or may be required to pay the Shippers rebate payments, in certain circumstances as set out in the GNC.

Shippers are required under the GNC to provide sufficient security deposits to PowerGas to cover their Outstanding Balancing Indebtedness. The security deposits can be in the form of banker's guarantee, cash deposits or any combination of both.

PowerGas' liability under the GNC in respect of any claim or a series of related claims is capped at S$500,000.00 for any one shipper and capped at S$5,000,000.00 for all shippers. The liability of a shipper to PowerGas under the GNC is uncapped.

The GNC also contains sections dealing with procedures for metering and the calculation of quantities, invoicing, title and risk, injection and offtake requirements, maintenance and system stress and the establishment and use of the GTSS (the electronic information exchange system operated by PowerGas for the purposes of the GNC).

The GNC also provides for the establishment of a Code Modification Panel comprising, among others, the PowerGas representative, Shipper representatives, New Entrant representative, End User representative, Independent representative (appointed by EMA) and panel chairman (appointed by EMA). Any Shipper or representative, including PowerGas, may make a request to modify the GNC by submitting a code modification proposal to the Code Modification Panel for review (subject to the approval of the EMA).

Gas Transporter Licence and Tariff Regulatory Framework for the Gas T&D Business

For a discussion of the Gas Transporter Licence and PowerGas' role as a Gas Transporter Licensee, see "Business of SP Group — Transmission and Distribution Business in Singapore — Gas T&D Business — PowerGas' Gas Licences — Gas Transporter Licence". For a description of PowerGas' current tariffs and a detailed discussion of the manner in which its tariffs are regulated by the EMA, see "Business of SP Group — Transmission and Distribution Business in Singapore — Gas T&D Business — Tariff Regulatory Framework for the Gas T&D Business."

DISTRICT COOLING INDUSTRY IN SINGAPORE

In mid 1990's, Urban Redevelopment Authority ("URA"), the town planning authority in Singapore, conducted feasibility study and planning for the construction of common service tunnels in the new business district for accommodating utilities lines. As part of the feasibility study, district cooling was identified as an urban utility for the new business district. Provision was made in the design of the common services tunnels for accommodating chilled water pipes.

Singapore Power and Dalkia conducted a feasibility study and confirmed viability of the new utility service. They went on to form SDC as a joint venture to implement the pilot system. The first district cooling plant was completed and commercial operation commenced in May 2006. SDC became a wholly-owned subsidiary of SP in 2015.

To provide district cooling services in the Marina Bay Area, a licence from EMA is required. Currently, SDC is the only company that EMA has granted a district cooling licence.

The commercial customers served by SDC are largely regulated, but a number of businesses subscribe on an unregulated basis to SDC's service outside the mandated regulated area. All customers (whether regulated or unregulated) are required to sign a supply agreement before services are carried out to acknowledge and agree upon the terms and conditions of services provided by SDC. Customers are invoiced monthly with a relatively short billing cycle of 30 days. SDC ensures a GIRO Collection arrangement with the majority of its customers.

Revenue computation is the same for regulated and unregulated businesses. The economic efficiency contribution is finalised through the annual regulatory licence audit.

Declaration of Service Areas

The Minister may, from time to time and in accordance with the District Cooling Act, declare an area to be a service area where district cooling services are to be provided to the area, on such terms and conditions as the Minister thinks fit. The Minister may also revoke any such declaration, or modify any term or condition imposed under any such declaration, in accordance with the District Cooling Act.

Unless exempted, the occupier of every premises within a service area requiring air conditioning shall use the district cooling services provided by a District Cooling Services Licensee if such services are available within the service area. Further, no District Cooling Services Licensee shall refuse to provide district cooling services to any premises within his service area.

Licensing Regime

The District Cooling Act provides that no person shall provide district cooling services to any service area unless he is authorized to do so by a district cooling licence granted under the District Cooling Act.

A district cooling licence may contain such terms and conditions as the EMA may determine. Such conditions may include, among others:

- conditions requiring the licensee to:

  (a) prepare itself to deal with any public emergency;

  (b) pay to the EMA a fee for the grant of the district cooling licence or to pay to the EMA periodic fees for the duration of such licence, or both, of such amount as may be determined by or under the regulations or licence;

  (c) appoint technical and financial auditors approved by the EMA;

  (d) comply with any direction given by the EMA;

  (e) comply with the standards and requirements stipulated in any code of practice and any other standard of performance applicable to the licensee; and

  (f) do or not do such things as are specified in the licence or are of a description so specified;

- provisions for the conditions to cease to have effect or be modified at such times, in such manner and in such circumstances as may be specified in or determined by or under the conditions;

- provisions regulating the prices to be charged by the licensee including:

  (a) the fixing of prices or the rate of increase or decrease in prices;

  (b) the fixing of a maximum price or maximum rate of increase or minimum rate of decrease in the maximum price;

(c) the fixing of an average price or an average rate of increase or decrease in the average price;

(d) the setting of price policies or principles;

(e) the setting of prices with reference to a general price index, the cost of production, a rate of return on assets employed or any other specified factors; and

(f) the setting of prices with reference to the quantity, location, period, temperature of coolant, or other specified factors relevant to the provision of district cooling services;

- provisions for the periodic disclosure of information, by way of an information memorandum, including:

  (a) reports on the management of the district cooling services;

  (b) reports on asset management of the district cooling system;

  (c) reports on price comparison of the district cooling service with the conventional air-conditioning systems;

  (d) reports on performance comparison of the district cooling services with the conventional air-conditioning systems;

  (e) security measures; and

  (f) reports on financial matters and accounts of the licensee; and

- provisions requiring the licensee to provide a sinking fund for asset management.

A district cooling licence shall not be transferable and any purported transfer is void. The EMA may modify the conditions of any district cooling licence in accordance with the District Cooling Act.

Powers of the EMA to Control District Cooling Services Licensees

The Minister may, on an application by the EMA, make an order under Section 22 of the District Cooling Act in relation to SDC if SDC fails to discharge (or does not discharge to the Minister's satisfaction) the obligations imposed by the EMA on SDC, SDC's District Cooling Services Licence is suspended or cancelled under Section 13 of the District Cooling Act, or where it is in the public interest. The orders which may be made by the Minister under Section 22 of the District Cooling Act are (i) a special administration order; and (ii) an order requiring SDC to take any action or to do or not to do any act or thing as the Minister considers necessary. The decision of the Minister is final.

A special administration order is an order which allows any person appointed by the Minister to manage SDC's affairs, business and property for the period during which the order is in force to achieve the security and reliability of the provision of district cooling services.

Where a special administration order has been made, the Minister may, at any time, whether or not the order is still in force, fix the remuneration and expenses to be paid by SDC to the person appointed by the Minister to manage SDC's affairs, business and property.

The Minister may also make regulations for giving effect to Sections 21 to 23 of the District Cooling Act, including regulations making provision for applying, omitting or modifying the provisions of Part VIIIA of the Companies Act (which relate to the judicial management of companies).

The EMA has the power to issue directions to any District Cooling Services Licensee or person for the purposes of the continuity and reliability of the provision of district cooling services to consumers, the security of the provision of district cooling services to consumers, and the interests of public safety. Any failure to comply with such directions may be punished on conviction by a fine not exceeding S$10,000 or by imprisonment for a term not exceeding 12 months or both.

Section 13 of the District Cooling Act provides EMA with the right to take certain enforcement measures against SDC if the EMA is satisfied that (a) SDC is contravening, has contravened or is likely to contravene any condition of the District Cooling Services Licence, any code of practice or other standard of performance applicable to it, any provision of the District Cooling Act (which would include its statutory duties under the District Cooling Act) or any direction issued by the EMA or otherwise applicable to it, (b) SDC has entered into liquidation (other than for the purpose of amalgamation or reconstruction), (c) SDC has made any assignment to, or composition with, its creditors, or (d) the public interest of Singapore so requires. The EMA's enforcement measures include: (i) suspending or cancelling SDC's licence for such period as the EMA thinks fit, (ii) requiring SDC to replace its management with appointees approved by the EMA, (iii) requiring SDC to comply with any direction given by the EMA relating to or in connection with the district cooling system, (iv) requiring SDC to furnish performance bonds, banker's guarantees and any other securities for such amounts and on such terms as the EMA sees fit, and (v) imposing a financial of an amount not exceeding 10.0% of the annual turnover derived from SDC's provision of district cooling services in Singapore (as determined from SDC's latest audited accounts).

District Cooling Services Supply Code

Pursuant to Section 14 of the District Cooling Act, the EMA may issue codes of practice in connection with the provision of district cooling services. To-date, the EMA has issued the District Cooling Services Supply Code ("District Cooling Code") for the regulation of activities and conduct in the provision of district cooling services. The District Cooling Code sets out the (i) minimum standards of performance in accordance with which SDC is required to supply district cooling services, (ii) rights and obligations of SDC and the consumers of district cooling services, and (iii) technical requirements and arrangements for supply connection.

RECENT DEVELOPMENTS

The Electricity (Amendment) Bill (B35/2018) and Gas (Amendment) Bill (B36/2018) were tabled in Parliament for first reading on September 10, 2018, and were passed by Parliament on October 1, 2018. The Bills seek to amend the Electricity Act and Gas Act, to enable more effective regulation of the gas and electricity markets, to enhance the security and reliability of gas and electricity supply and to protect critical infrastructure and enhance competitiveness in Singapore's energy market. As of the date of this Offering Circular, the proposed amendments to the Electricity Act and Gas Act have not been gazetted and have not come into force.

The key proposed amendments to the Gas Act and Electricity Act include:

- granting the EMA the right to issue directions to Gas Licensees and other parties to take measures to safeguard gas supply;
- granting the EMA the right to issue directions to the Transmission Licensee and an Electricity Licensee to effect a connection between the electrical equipment of such licensees, where the EMA considers that such a connection is necessary for the expansion of the transmission network;
- implementing protections of submarine electricity cables and gas pipelines and enhancing protection of land-based electricity and gas infrastructure; and
- regularizing the provisions of the Electricity Act and Gas Act (including to ensure consistency in the ownership, acquisition and divestment controls over Electricity Licensees and Gas Licensees under the Electricity Act and Gas Act, respectively).

BUSINESS OF SP GROUP

OVERVIEW

SP Group is a leading energy utility company in Asia Pacific, with total assets of S$19.2 billion as of March 31, 2018 and S$1.0 billion of profit attributable to its owner for the financial year ended March 31, 2018. SP Group owns and operates electricity and gas transmission and distribution businesses and a market-support services business in Singapore, and holds an interest in two Australian companies which are engaged in the transmission and distribution of electricity and gas in Australia. SP Group also owns and operates one of the world's largest underground district cooling network that is located in Singapore, and SP Group is also setting up district cooling operations in China. As of March 31, 2018, SP Group's Electricity T&D Business, Gas T&D Business and Market Support Services Business serve more than 1.58 million industrial, commercial and residential customers in Singapore. SP Group's electricity and gas transmission and distribution networks are amongst the most reliable and cost-effective worldwide.

SP Group's core business comprises the following segments:

- **Transmission and distribution business in Singapore**

  SP Group's transmission and distribution business in Singapore is substantially driven by the Electricity T&D Business and also includes the Gas T&D Business. SPPA, a wholly-owned subsidiary of SP, is the sole Transmission Licensee in Singapore, and owns and maintains the electricity transmission and distribution network that delivers power to substantially all electricity consumers in Singapore. PowerGas, a wholly-owned subsidiary of SP, is also the sole Gas Transporter Licensee and gas system operator in Singapore, and owns, operates and maintains the gas transmission and distribution network that delivers both natural gas and town gas to substantially all gas end users in Singapore.

  Profit for the year from this segment accounted for 60%, 62% and 64% of SP Group's total profit for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively. Total assets of this segment accounted for 68%, 67% and 66% of SP Group's total assets for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively.

- **Investments in Australia**

  SP Group holds an interest in two Australian companies, which are engaged in the transmission and distribution of electricity and gas in Australia. SP Group owns a 40% interest in SGSPAA and a 31.1% interest in AusNet Services, a company listed on the ASX.

  SP Group seeks to create and optimize risk-adjusted returns of its investments over the long term. SP Group aims to add value to its investee companies through board representations, exercising governance and oversight at the board level and providing inputs on the strategic direction of its investee companies.

  SP Group's profit for the year from its investments in Australia accounted for 26%, 21% and 18% of SP Group's total profit for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively. Total assets of this segment accounted for 17%, 17% and 15% of SP Group's total assets for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively.

- **Market Support Services Business**

  SP Services, a wholly-owned subsidiary of SP, is the only MSSL in Singapore. SP Services facilitates competition in the retail electricity market by enabling consumers to switch seamlessly between buying electricity from Retail Licensees and at wholesale market prices, and by acting as a Retailer of Last Resort. SP Services also acts as billing agent to certain Retail Licensees and other utility principals. These principals include PUB, Citygas and various refuse vendors, to whom SP Services provides billing, meter reading (where applicable) and other customer services for gas, water and refuse utilities.

  SP Group's profit for the year from this segment accounted for 8%, 8% and 13% of SP Group's total profit for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively. Total assets of this segment accounted for 6%, 7% and 7% of SP Group's total assets for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively.

- **Others**

  The "Others" segment comprises certain other activities, including (without limitation) investment holding services and the businesses described below.

  District Cooling

  SDC, a wholly-owned subsidiary of SP, currently provides district cooling services to developments in Singapore and China. In addition to providing district cooling services to developments within the service area designated by the District Cooling (Declaration of Service Area) Notification 2006 under the District Cooling Act, SDC also engages in the production and supply of chilled water for air-conditioning purposes to developments outside of the service area, as well as the production and supply of hot water to the developments and provision of consultancy services on the design, implementation and operation of chiller and HVAC systems globally.

  Real Estate

  In support of Singapore's national agenda to optimize land use, SP Group has embarked on the optimization of land use through the development of an underground transmission substation and building of commercial property above the underground substation. This real estate development project which comprises SPPA's underground transmission substation and operational support center, and a commercial office tower, is located along Pasir Panjang Road in Singapore. It is planned for completion in end 2025.

  Digital Solutions

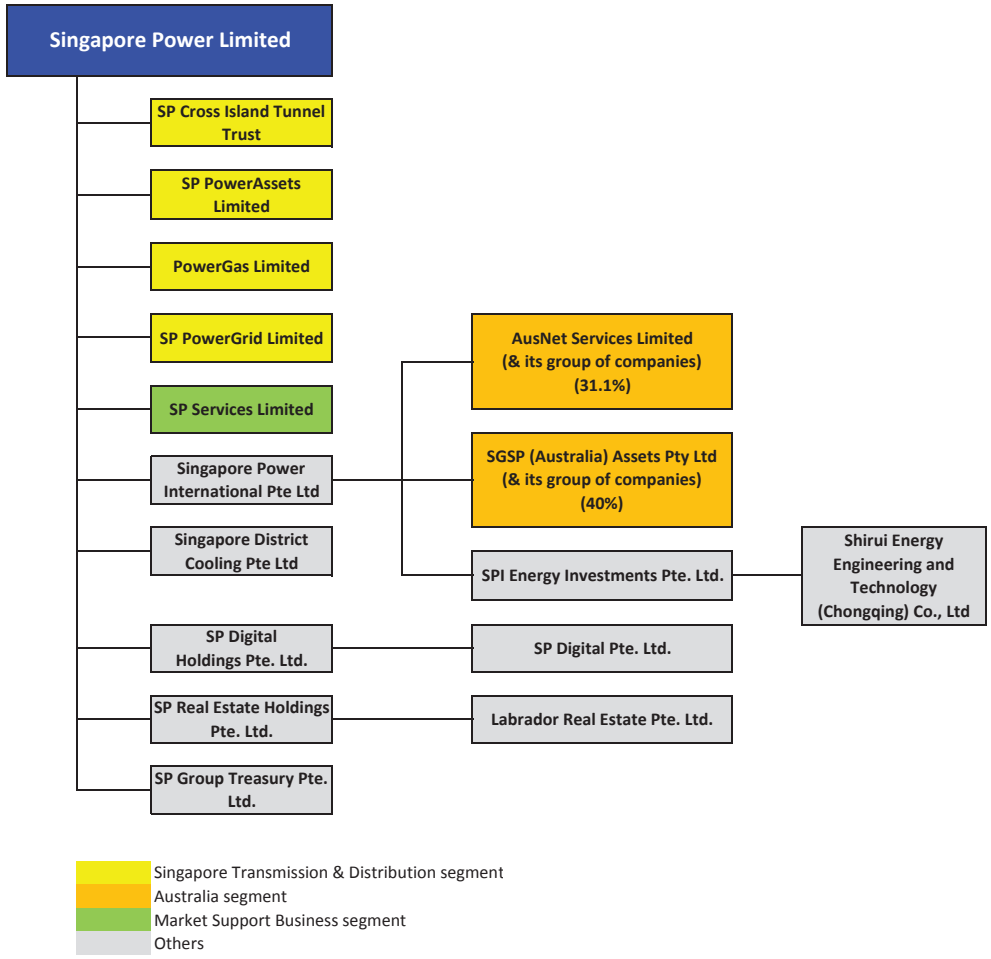
  SP Group aims to capture new digital opportunities across the electricity value chain, with a vision to empower utilities and its customers to accelerate towards their sustainability goals by leveraging on its strong in-house digital capabilities in order to design and develop a digital platform to connect and orchestrate the network assets and energy assets across the electricity value chain as well as to connect customers to the ecosystem.

  SP Group's profit for the year from the "Others" segment accounted for 6%, 9% and 5% of SP Group's total profit for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively. Total assets of this segment accounted for 9%, 9% and 12% of SP Group's total assets for the years ended March 31, 2016, March 31, 2017 and March 31, 2018, respectively.

The Guarantor has been assigned an overall corporate credit rating of "Aa2" by Moody's and "AA" by S&P.

SP is wholly-owned by Temasek, an investment company headquartered in Singapore with a diversified investment portfolio.

The following diagram sets out an overview of the corporate structure of SP Group, showing the key subsidiaries and associates as at the date of this document:



BUSINESS STRENGTHS

SP Group believes that the following are its key business strengths that should establish a solid platform for SP Group to execute its business strategy:

Stable and predictable cash flows from the Electricity T&D Business and the Gas T&D Business and related services in Singapore

Given SP Group's exclusive market position in Singapore in relation to the transmission and distribution of electricity and gas (see " — Sole electricity and gas transmission and distribution networks in Singapore" below for further details), the Electricity T&D Business and the Gas T&D Business generate stable and predictable cash flows and earnings. SP Group's electricity and gas customers include a diverse mix of customers, comprising industrial, commercial, residential consumers and end users. This helps to shield SP Group from severe fluctuations in electricity and gas demand resulting from downturns in specific industries. In addition, as part of SP Group's regulatory framework, SP Group's exposure in a given year to increases or decreases in revenue associated with changes in the aggregate volume or amount of electricity and gas transmitted or distributed on SP Group's network is limited to a +/- 2.0% deviation from the original volume and/or revenue forecast for the respective network incorporated into the price control regulation. If the deviation is outside this 2.0% range, the present regulatory framework is such that the EMA will effect price changes in the subsequent FY to compensate for such variance beyond 2.0%. Based on an average taken

from FY16 to FY18, 87.3% of SP Group's net revenue (non-SFRS) was derived from its regulated electricity and gas T&D revenue. Please refer to the more detailed discussions in " — Tariff Regulatory Framework for the Electricity T&D Business — Performance-Based Regulation and Price Controls set by the EMA" and " — Tariff Regulatory Framework for the Gas T&D Business — Performance-Based Regulation / Price Controls set by the EMA."

SP Group believes that the substantial cash flows resulting from its regulated revenue (together with the cash flows from its other non-regulated businesses) will allow SP Group to maintain a strong interest coverage ratio.

Regulatory regime with incentives for efficiency gains

SP Group operates within a clear regulatory framework in respect of its transmission and distribution, as well as market support services businesses in Singapore and maintain a close working relationship with the EMA. SP Group's charges for use of its electricity and gas transmission and distribution networks and its market support services fees are subject to price controls based on a performance-based regulatory framework that offers SP Group incentives to earn higher profits through operating and capital expenditure efficiencies. SP Group's price controls are subject to regulatory reset and the approval of the EMA. This performance based regulatory framework allows SP Group to retain the operating and capital efficiency gains achieved during the current five-year regulatory period and it is intended that SP Group subsequently shares equally between itself and its customers these efficiency gains in the following regulatory period. In addition, for the Transmission Licensee, it is also allowed to retain its revenue attributed to capital expenditure underspend not due to efficiency gains by up to 5% of the approved capital expenditure budget during the reset.

Sole electricity and gas transmission and distribution networks in Singapore

SPPA, a wholly-owned subsidiary of SP, is currently the sole electricity transmission and distribution company in Singapore, and PowerGas, a wholly-owned subsidiary of SP, is currently the sole gas transmission and distribution company in Singapore.

The EMA may not terminate SPPA's Transmission Licence or PowerGas' Gas Transporter Licence except by giving 25 years' notice, or otherwise revoking the Transmission Licence or the Gas Transporter Licence in accordance with the Electricity Act or the Gas Act, respectively (including where the EMA is satisfied that SPPA or PowerGas (as the case may be) has gone into compulsory liquidation or voluntary liquidation other than for the purpose of amalgamation or reconstruction, or the public interest or security of Singapore requires). SP Group believes that the proper functioning of its assets and its business operations is considered strategic to Singapore's economic development and security. Please refer to the more detailed discussions in " — Tariff Regulatory Framework for the Electricity T&D Business — Performance-Based Regulation and Price Controls set by the EMA" and " — Tariff Regulatory Framework for the Gas T&D Business — Performance-Based Regulation / Price Controls set by the EMA."

Reliable networks, facilities and technical performance

SP Group believes that the technical performance of its electricity and gas transmission and distribution networks (as measured by reliability indices such as SAIDI, SAIFI, 22kV SARF190 and leaks per km) generally exceeds those of its comparable peers in other developed countries. With the technical and engineering expertise of the highly skilled workforce of the Manager and SP Group's established maintenance and operating policies and procedures, SP Group has consistently achieved high levels of technical performance with respect to its transmission and distribution assets. SP Group regularly monitors and assesses its electricity and gas transmission and distribution network assets and implements effective maintenance policies to ensure a high level of network performance and optimal asset service lives. SP Group's key asset management initiatives include condition-based maintenance and timely replacement of its electricity and gas transmission and distribution network assets.

An experienced management team

SP Group has a highly experienced management team which comprises reputable and experienced industry executives. The team is supported by highly skilled middle management with strong technical backgrounds and high levels of qualification and training. The middle management team has extensive experience in the day-to-day operations of the core Electricity T&D Business and Gas T&D Business and other businesses such as the Market Support Services Business and District Cooling Services Business.

SP Group's experienced management team has developed strong working relationships with the Government and business partners, and has accumulated extensive experience in, and substantial understanding of, the markets in which SP Group operates. The capability of the management team has been demonstrated by the strong track record of SP Group's operational and financial performance. SP Group's management team has helped SP Group achieve prudent growth. For the financial years ended March 31, 2016, 2017, and 2018, SP Group recorded cash generated from operations of S$1,608.8 million, S$1,607.7 million, and S$1,448.2 million, respectively.

SP Group believes that SP Group management's expertise, market knowledge, and strong performance track record gives it a significant competitive advantage over SP Group's existing and potential competitors.

International experience with extensive track records

SP Group has significant experience in operations and investments overseas, including in relation to SGSPAA and AusNet Services in Australia since 2000 and the district cooling services business in China since 2015. SGSPAA Group operates an assets business which owns or has an interest in a portfolio of network businesses in Australia's energy sector and a services businesses which delivers engineering, design and construction, field based maintenance and operational services, whilst the AusNet Services Group is a diversified energy infrastructure business that owns and operates the regulated electricity transmission and distribution networks and gas distribution networks in Victoria, Australia. In China, SP Group provides energy-efficient technology and engineering services, in particular through the provision of end-to-end chilled water and hot water services in China. SP Group's international experience equips it with operational and managerial experience beyond Singapore, and serves as a platform for future international expansion.

Robust credit and financial profile

SP Group believes that its prudent financial policy and capital management structure in financing its operations and investment in its projects have led to SP Group's success. SP Group's substantial cash flows resulting from its regulated revenue (together with the cash flows from its other non-regulated businesses) have allowed SP Group to maintain strong financial ratios. For the financial years ended March 31, 2016, 2017 and 2018, SP Group's interest coverage ratios had remained stable at 11.4x, 16.0x and 14.2x, respectively, while FFO to net debt remained robust at 58.9%, 61.2% and 50.5%, respectively. As of the end of financial years 2016, 2017, and 2018, SP Group's gearing as measured by debt obligations to total debt and equity ratio was at healthy level of 31.6%, 30.4% and 31.8%, respectively. FFO and net debt are non-SFRS financial measures. For a discussion and computation of these non-SFRS financial measures and SP Group's interest coverage ratios and gearing, see "Selected Financial and Other Data — Selected Non-SFRS Financial Measures and Other Financial Data".

The Guarantor is rated "Aa2" and "AA" by Moody's and S&P, respectively. SP Group believes that its robust credit and financial profile will position it to continue to maintain healthy financial metrics and stable margins and achieve growth going forward.

Robust equipment, facilities and technologies used

SP Group leverages on robust IT systems with a view to ensuring the reliability of its operation processes and the delivery of excellent services to its customers.

In particular, SP Services' IT system provides the billing and market settlement functions for the Singapore electricity market, and is a core infrastructure backbone for the industry. SP Services' IT system manages the meter readings and electricity consumption for all electricity consumers in Singapore. It also manages the contestability switch by consumers between the MSSL and Retail Licensees. SP Services' billing system also provides consolidated utilities billing, including water, gas and refuse billing, enabling all Singapore consumers to enjoy the convenience of one-bill for their utility needs.

STRATEGY

SP Group's principal strategic objectives are to sustain earnings and to continue the improvement in its operational efficiencies. Building on its business strengths, SP Group has developed the following principal plans and strategies to achieve these objectives:

Proactive regulatory management of the Electricity T&D Business and the Gas T&D Business to encourage the adoption of practical policies and an economically robust regulatory framework

SP Group proactively engages Government officials and regulators on a regular basis. This close working relationship is to encourage the adoption of practical policies and an economically robust regulatory framework. SP Group intends to continue to work in consultation with the EMA. SP Group monitors international regulatory developments and best practices as well as benchmarks SP Group's costs and performance to promote efficiency.

SP Group proactively engages its large industrial customers and seeks their feedback on its pricing and services. SP Group holds regular meetings at both senior management as well as operational levels with its key customers to better understand how it can meet their business and electricity and gas service needs. SP Group also works closely with retail electricity licensees to obtain feedback on its pricing and services regarding contestable consumers, and works closely with its customers on potential new gas end users. SP Group believes that maintaining superior customer services will improve its partnership with the EMA and the Government and the regulatory treatment of its business.

Pursue operational efficiencies in the use of its regulated asset base

SP Group has established and implemented best practice procedures to increase the productivity and the level of utilization of its transmission and distribution assets. SP Group plans to achieve this through its ongoing asset management initiatives, the introduction of advanced technology and the proactive review of its current construction, maintenance and refurbishment activities to improve its efficiencies. Moreover, SP Group regularly considers various opportunities for the continued identification and progressive realization of synergies in its business operations.

Maintain high network reliability and quality service

In order to maintain its strong network performance, SP Group takes significant measures to prevent major system failures from occurring. SP Group has adopted a condition-based maintenance regime, which together with its technical and engineering expertise, the highly skilled workforce of the Manager and SP Group's comprehensive maintenance and operating procedures enables it to achieve high network reliability and service quality.

SP Group believes in proactive risk mitigation controls to effectively safeguard the security and stability of the network.

Minimize financial risk through prudent financial management

SP Group intends to preserve an optimal capital structure and maintain its financial strength through management of key measures, such as capital expenditures, cash flows, leverage and coverage ratios. Specifically, SP Group aims to strike a balance between optimizing its capital structure and achieving a prudent level of leverage.

Embrace new technologies and innovations to stay ahead of potential technological disruptions to the industries in which SP Group operates and forge partnerships with complementary industry players

SP Group actively identifies new technological trends and invests in innovations that improve operational efficiencies and customer experience by developing and applying new technologies such as mobile applications and online platforms. For example, SP Group seeks to digitize its systems to improve the quality of its services and to closely monitor its networks with the view to improving or maintaining its reliability at a potentially lower cost. SP Group adopts a three-pronged strategy to build up its sustainable capabilities: to be exposed to the latest technologies and ideas in the industry; to test promising ideas; and to have the capability to handle proven technologies. In preparation for the global trends around decentralization, decarbonization and digitalization, SP Group is actively building up capabilities in the latest technologies and innovations such as blockchain, digital transformation, cybersecurity, renewable energy, battery storage, microgrids, energy efficiency and mobility.

In addition, in respect of the digital solutions business, SP Group plans to work closely with technology providers, independent power producers, and others who may provide complementary products or solutions to expand its presence in the region.

Explore opportunities in core and adjacent business areas

SP Group has a strong track record of developing, operating, and maintaining electricity and gas transmission and distribution networks which provides it with a deep repository of technical know-how and operational experience. SP Group intends to apply these competitive advantages to explore opportunities in the core Electricity T&D Business and Gas T&D Business, as well as district cooling networks, in Singapore and overseas. SP Group also intends to leverage on its proprietary knowledge to explore opportunities in adjacent business areas. Such new adjacent businesses and initiatives include grid monitoring solutions, smart energy network and other power grid applications, solar energy toolkit, electric vehicle solutions, and blockchain application for energy market settlement. SP Group intends to explore these opportunities organically or via strategic mergers and acquisitions.

TRANSMISSION AND DISTRIBUTION BUSINESS IN SINGAPORE

Electricity T&D Business

SPPA, a wholly-owned subsidiary of SP, is the sole provider of electricity transmission and distribution services in Singapore, and owns and maintains the electricity transmission and distribution network that delivers power to substantially all electricity consumers in Singapore. As of March 31, 2018, SPPA recorded total assets of S$11.9 billion, and served approximately 171,000 industrial and commercial electricity consumers and approximately 1.41 million domestic electricity consumers in Singapore. SPPA transmits electricity generated by third parties through its high-voltage, wholly-underground transmission network and distributes that electricity through its lower-voltage, predominantly-underground distribution network to its consumers.

SPPA was issued a Transmission Licence dated November 3, 2003 by the EMA. The EMA may terminate SPPA's Transmission Licence by giving it 25 years' notice, or otherwise in accordance with the Electricity Act (including where the EMA is satisfied that SPPA has gone into compulsory liquidation or voluntary liquidation other than for the purpose of amalgamation or reconstruction, or the public interest or security of Singapore requires).

As of March 31, 2018, SPPA's electricity transmission and distribution network within Singapore comprised:

- more than 22,300 km of cable circuits which are primarily underground;
- a network of 400kV, 230kV and 66kV transmission facilities, which include substations, switchgear and transformers; and
- a network of 22kV, 6.6kV, 400V and 230V distribution facilities, which include substations, switchgear and transformers.

The reliability of SPPA's electricity transmission and distribution network has been fundamental to its success. SPPA achieved reliability benchmarks (comprising SAIDI and SAIFI) which compare favorably with other underground transmission and distribution networks. SAIDI represents the average unplanned outage duration experienced per consumer per annum and SAIFI represents the average number of unplanned interruptions per consumer per annum.

The Electricity Authorised Business is subject to extensive regulation. The price controls which limit the use of system charges which SPPA may charge its consumers are subject to regulatory approval by the EMA. In addition, the EMA imposed the SOP Scheme in August 2004. The SOP Scheme is an incident-based penalty only performance scheme. Please refer to a detailed discussion in " — Tariff Regulatory Framework for the Electricity T&D Business — Electricity Transmission and Distribution Network Performance Scheme" and " — Tariff Regulatory Framework for the Electricity T&D Business — Performance-Based Regulations and Price Controls set by the EMA".

Electricity Transmission and Distribution Operations

SPPA owns an electricity transmission and distribution network. SPPA transmits and distributes electricity from Generation Licensees to substantially all electricity consumers in Singapore. In operating the Electricity Authorised Business, focus is placed on three core areas of activities: network management, network planning and development and regulatory affairs. Through these core activities, SPPA maintains a secure and reliable electricity transmission and distribution network that enables transportation of electricity from electricity generation plants to consumers in an economical, efficient, safe and timely manner while meeting the EMA's performance standards.

SPPA serves approximately 1.58 million electricity consumers in Singapore through its high-voltage, wholly- underground transmission network comprising 400kV, 230kV and 66kV cables and its lower-voltage, predominantly underground distribution network comprising 22kV, 6.6kV, 400V and 230V cables.

SPPA's electricity consumers are grouped into the following segments:

- Ultra High Tension electricity consumers (electricity consumers receiving electricity supply at 230kV and above, such as petrochemical companies and oil refineries). These are contestable consumers;
- Extra High Tension electricity consumers (electricity consumers receiving electricity supply at 66kV, such as wafer fabrication plants). These are mostly contestable consumers;
- High Tension — Large electricity consumers (electricity consumers receiving electricity supply at 22kV or 6.6kV with a Contracted Capacity of at least 1,700kW, such as manufacturing companies and commercial complexes). These are mostly contestable consumers;
- High Tension — Small electricity consumers (electricity consumers receiving electricity supply at 22kV or 6.6kV with a Contracted Capacity of less than 1,700kW, such as manufacturing companies and commercial complexes). These are mostly contestable consumers;

- Low Tension — Large electricity consumers (electricity consumers receiving electricity supply at 400V or 230V, which include large industrial and commercial consumers). These are contestable consumers with Time-of-Day ("TOD") metering (see "Electricity Transmission and Distribution Network Assets — Meters" for further information on TOD meters); and

- Low Tension — Small electricity consumers (electricity consumers receiving electricity supply at 400V or 230V, which include residential consumers and commercial consumers such as small businesses). These non-contestable consumers are metered on a monthly basis and choose to buy electricity from SP Group at regulated tariffs.

Reliability of Electricity Transmission and Distribution Network

SP Group believes that the reliability of SPPA's electricity transmission and distribution network has been fundamental to its success. SPPA's adoption of industry best practice in asset management has enabled it to deliver electricity to its consumers with fewer interruptions. SPPA's electricity transmission and distribution network also allows electricity supply to be delivered to high technology manufacturers with special needs relating to system stability.

SPPA's operation and control systems are designed to identify, assess and respond promptly and effectively to supply interruptions. SPPA's electricity transmission and distribution network is designed with adequate capacity so that alternative networks are available to deliver electricity when a single circuit is taken out of service for maintenance or due to a fault. SPPA has adopted a range of measures to prevent power failures and to minimize the impact of any network service interruption to customers. In the event of a failure, its network protection and contingency systems swiftly isolate faults and the "N minus 1" transmission network architecture provides alternative pathways for electricity to reach consumers, thereby preventing certain network faults from having any or widespread effect on the services which SPPA provides to its consumers. SP Group believes that these are effective measures in safeguarding the security and stability of SPPA's electricity transmission and distribution network as well as the reliability and quality of SPPA's electricity transmission and distribution services.

The average useful life of SPPA's electricity transmission and distribution equipment and cables is 30 years. While the Electricity T&D Group optimizes the life of its assets through best practices in condition monitoring and maintenance, aging equipment that have an adverse impact on network reliability will be timely replaced.

SPPA's network reliability performance generally exceeds that of its peers in other countries with comparable networks. SAIDI and SAIFI are currently the primary indices for network reliability.

SPPA's SAIDI, SAIFI and 22kV SARFI90 for FY16 to FY18 are set forth in the table below:

	For the financial year ended March 31		
	2016	**2017**	**2018**
Measure			
SAIDI[(1)] (minutes)	0.56	0.25	0.19
SAIFI[(2)] (interruptions)	0.0113	0.0059	0.008
22kV SARFI90[(3)]	4.8	1.1	1.08

Notes:

(1) SAIDI represents the average unplanned outage duration experienced per consumer per annum.

(2) SAIFI represents the average number of unplanned interruptions per consumer per annum.

(3) 22kV SARFI90 represents the average number of voltage dips per year that a consumer experiences where the remaining voltage is less than 90.0% of nominal voltage 22kV.

SPPA operates a 24-hour Electricity Service Center to help consumers during electricity supply emergencies. While their main responsibility is with regard to faults in SPPA's electricity transmission and distribution network, the Electricity Service Center's customer service officers also offer advice to consumers who experience faults within their own premises.

Power Quality

Power quality is of particular importance to SPPA's high technology manufacturing consumers, which require uninterrupted supplies of high quality electricity with stable technical characteristics, including stable voltage, to perform certain manufacturing functions. Examples of consumers with voltage-sensitive equipment include makers of microchips, wafers and semi-conductors. As voltage dip is an inherent phenomenon in the power network, it is the responsibility of such consumers to put measures in place to protect their equipment against voltage dips.

In early 2000, SPPA successfully split its 230kV network into two blocks (northern and southern) to enhance the fault-handling capability of its network as a whole. This also effectively improved power quality in Singapore by minimizing the impact on consumers sited in one supply block when voltage dips caused by transmission faults occur in the other supply block. With the further splitting of 230kV network into four supply blocks in early 2007, the impact of voltage dips on consumers was further contained. SPPA's comprehensive condition monitoring program for its network assets reduces the equipment and cable failures that could result in voltage dips. The information gathered from this program is also used to help SPPA to plan, develop and maintain an efficient and reliable network and maintain power quality. See " — Maintenance of Electricity Transmission and Distribution Network".

Despite the above efforts, equipment failures and hence voltage dips cannot be totally eliminated. Voltage sensitive consumers are advised to install their own power quality mitigation devices to safeguard against voltage dips. SPPA regularly engages its key customers from industries such as Semiconductor & Electronics, Pharmaceutical, Chemical & Petrochemical, Banking, Essential Services, Tourism & Hospitality and Data Centers to share knowledge and experiences in power quality management to better support these industries.

System Loss

Due to the physical and technological limitations on electrical conduction, systemic loss of electricity is inherent to any electricity transmission and distribution network. Electrical losses for any period are measured by reference to the difference between the number of units entering the electricity transmission and distribution network during the period (as metered or estimated) and the number of units of electricity supplied to electricity consumers for the period.

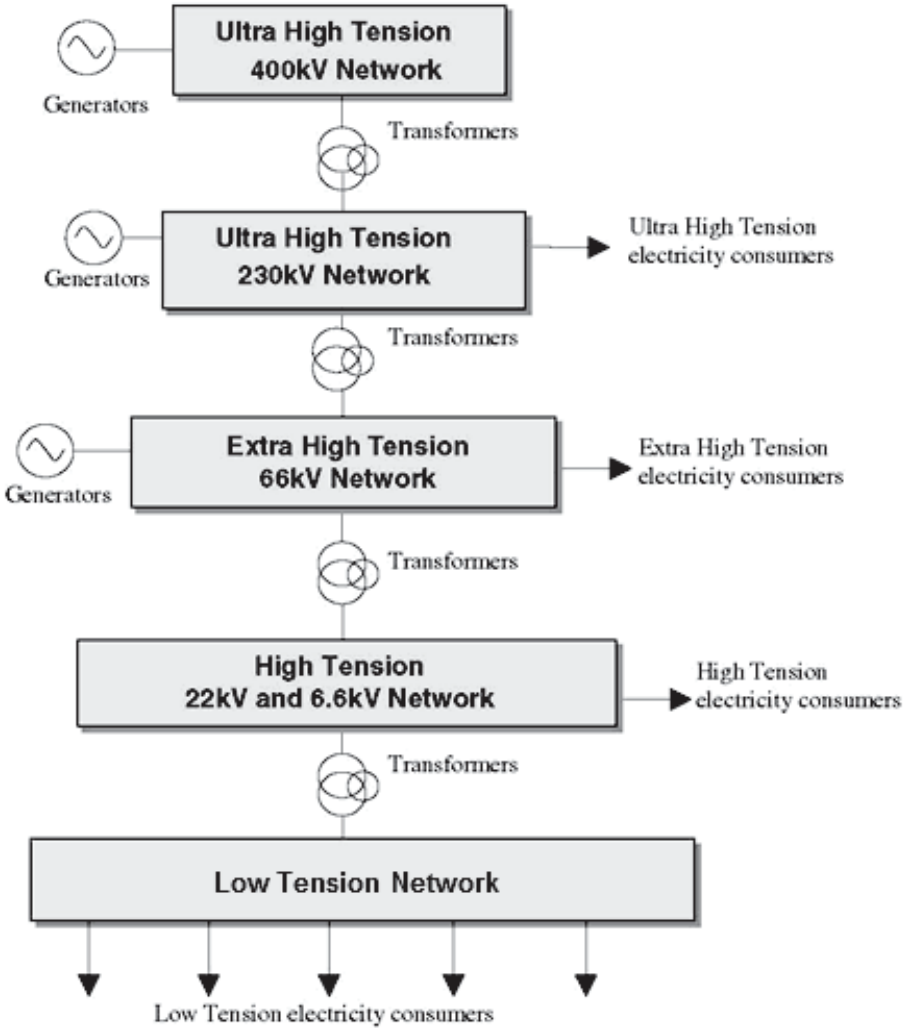
Electricity Transmission and Distribution Network Assets

The primary components of SPPA's electricity transmission and distribution network assets include:

- cables;
- interconnectors;
- substations, switchgear and transformers; and
- meters.

Electricity generation plants are connected with SPPA's transmission substations at 400kV, 230kV and 66kV, with electricity consumers being supplied electricity by SPPA at 230kV, 66kV, 22kV, 6.6kV, 400V and 230V.

The following diagram illustrates the basic structure of SPPA's electricity transmission and distribution network:



Each of the primary components of SPPA's electricity transmission and distribution network is described below:

Cables

SPPA's primary network assets are electricity transmission and distribution cables. SPPA's electricity transmission network is wholly-underground, and substantially all of its electricity distribution cables are also located underground.

In addition, a relatively small amount of SPPA's high-voltage transmission cables are laid in cable tunnels, which are special purpose underground conduits constructed at depths of 30 to 80 meters, which may be constructed under land or under bodies of water. Cable tunnels are an alternative to the direct burial of transmission cables. Cable tunnels, once constructed, permit for future system expansion with reduced need for disruptive road openings, as they may be accessed without the need for excavation and generally allow, due to their diameter, for the laying of additional cables within each cable tunnel as network demand increases. The Electricity T&D Group's existing cable tunnels include undersea tunnels through which ultra-high-voltage transmission cables are routed. For a discussion of the Electricity T&D Group's cable tunnel expansion plans, please see " — Enhancement of Electricity Transmission and Distribution Network — Transmission Cable Tunnels".

Interconnectors

With the aim of facilitating mutual energy transfers between Singapore and Malaysia, in 1983 the PUB and Tenaga Nasional Berhad ("TNB"), a Malaysian electric utility, brought into service high-voltage electricity transmission cables and related facilities for the transmission of electricity between Singapore and Malaysia (the "Interconnectors"). Pursuant to an agreement dated August 29, 1983 with respect to the Interconnectors which was eventually novated to SPPA on August 29, 2003, SPPA has a 50.0% stake in the Interconnectors and share equally the maintenance of the Interconnectors with TNB. Transfers of electricity between Singapore and Malaysia are netted-off on a regular basis such that net transfers of electricity and net revenues (non-SFRS) do not arise from the operation of the Interconnectors.

The Interconnectors enable SPPA to transmit electricity in times of need between Singapore and Malaysia to preserve system stability and in order for reserve generating capacity to be available on a shared basis across Singapore and Malaysia in the event that electricity generation plants in Singapore or Malaysia suddenly fail. Renewal of the Interconnectors is in progress and is scheduled to be completed in 2019.

Substations, Switchgear and Transformers

Substations are facilities that step-down electricity voltage between the transmission network and the distribution networks. At substations, various circuits of the electricity transmission and distribution network are marshalled together by high-voltage switchgear that automatically disconnect faulty transmission or distribution equipment in order to isolate and minimize damage to network assets. The high-voltage switchgear found at substations also permits the division of the electricity transmission and distribution network into small sections enabling maintenance to be carried out or supply to be restored locally following a fault. As of March 31, 2018, SPPA had approximately 11,700 electricity transmission and distribution substations in SPPA's electricity transmission and distribution network.

A transformer is a device to change electrical voltage from one voltage to another voltage for electricity transmission and distribution purposes as well as to suit consumers' requested supply voltage. SPPA has approximately 17,500 transformers in its distribution network.

Meters

SPPA owns all the meters used to measure the volume of electricity consumed by its consumers for revenue billing. Most of SPPA's meters are manually read except for those meters used for contestable consumers where the meters are remotely read via communication links such as telephone lines, Radio Frequency Mesh Network or GSM networks. SPPA maintains meters at consumer premises. Under the Electricity Market Rules, SP Services performs meter reading services in its capacity as MSSL. For a meter that must be read manually, meter data is collected by a meter reader employed by SP Services.

For consumers who become contestable after the implementation of the OEM, SPPA may be required to install TOD meters to measure their electricity consumption. TOD meters allow consumers' electricity consumption to be captured on a half-hourly basis in line with the market's half-hourly spot prices. TOD meters are capable of storing up to at least two months' worth of such data.

For the purpose of wholesale electricity market settlement, contestable consumers have their TOD meters read remotely on a daily basis. For non-contestable consumers, the billing settlement will be based on manual meter readings.

Protection of Electricity Transmission and Distribution Network Assets

In the event of a network fault, automatic safeguards are in place to contain the effect of the fault and protect the network assets from serious damage or disruption. In the event of generator outage causing a sudden shortage of electricity supply and a decrease in system frequency, automatic load shed schemes are in place to disconnect load in selected areas, thereby regaining the balance of supply and demand and maintaining system stability.

In addition, SP Group has taken a number of preventive measures to protect its key network installations from terrorist attacks. In addition to the deployment of guards at key transmission installations, technological security measures such as fence intrusion detection systems, CCTV and access control systems have been enhanced at key installations, which are all under 24-hour surveillance. Physical protection measures including anti-intrusion fences, anti-crash perimeter bollards/ walls and barriers, and structural hardening measures have also been implemented at key transmission substations to mitigate intrusion attempts and the possible impact of any blast attacks. SP Group's transmission cable routes are also patrolled regularly by its Earthworks Surveillance and Patrolling field enforcement officers. SP Group believes that the underground transmission cables offer comparatively greater protection from acts of terrorism or sabotage than overhead lines due to their comparatively greater difficulty of access and reduced prominence.

SP Group has relocated its security command center to its new headquarters in 2017 for greater operational efficiency. The new center continues to provide round-the-clock monitoring of all its facilities, including substations, cable bridges and district offices. An alternate security command center was also established in 2014 to ensure the continuity of such function. While mitigating measures have been put in place, there can be no assurance that such measures will fully address the risk of terrorist attacks on its infrastructure. Terrorism insurance coverage has also been procured for its key network assets.

See " — Insurance" for a discussion of SP Group's insurance policies.

SP Group work closely with the Energy Market Authority, Ministry of Home Affairs and the Police Force to ensure timely sharing of security related information and fast response by the state police in time of any emergency.

Operation and Control of Electricity Transmission and Distribution Network

SPPA's electricity transmission network is monitored, controlled and directed 24 hours a day, seven days a week from a Power System Control Center ("PSCC") which is owned and operated by the EMA. SPPA's electricity distribution network is monitored, controlled and directed 24 hours a day, seven days a week from a Distribution Control Center ("DCC"), which SPPA owns and operates. From the PSCC and the DCC, experienced system operators monitor, control and direct the electricity transmission and distribution of electricity throughout Singapore from electricity generating plants to electricity consumers through its electricity transmission and distribution network. In the event of a total failure at the PSCC or DCC, their respective back-up control centers elsewhere in Singapore can take over the operation, control and monitoring responsibilities of the PSCC and DCC. In addition, any of SPPA's regional control centers can also take over the operation (except remote switching) and monitoring responsibilities of SPPA's DCC.

Transmission

The PSCC balances the supply and demand of electricity in the network. Control signals are sent to electricity generation plants to raise or lower their output in accord with prevailing supply and demand conditions. The PSCC also closely monitors the total on-line electricity generation capacity to ensure that there is sufficient reserve on-line to cater for any unexpected loss of generation and so that such loss may be quickly replaced. Supply from electricity generation plants is dispatched according to a schedule produced daily by the EMC. This schedule is produced by matching the system load forecasted by the system operator against offers from Generation Licensees.

Distribution

SPPA's DCC is equipped with control systems, including a real-time information board showing the status of the distribution network. Information on its distribution substations and distribution cables is captured and monitored by monitoring equipment installed throughout its distribution network by means of its Supervisory Control and Data Acquisition ("SCADA") system. Any abnormal condition or failure of equipment in the distribution network detected by this equipment is transmitted back to the DCC for analysis and action. The DCC also maintains voice communications with its highly-skilled engineers in the field.

The SCADA system remotely monitors and controls the entire 22kV distribution network comprising more than 7,000 substations, and approximately 4,000 out of 4,500 6.6kV substations. It enables electricity loads to be monitored and controlled centrally from the DCC without requiring personnel being dispatched to the sites. The SCADA system utilizes fiber optic cables, wireless technology, pilot cables and the cable sheaths of its 6.6kV distribution cables to transmit data to the DCC.

Linked to SPPA's SCADA system, SPPA's Artificial Intelligence System serves as an operator support system, providing information to the operator to formulate contingency plans and/or to assist the operator in carrying out quick supply restoration.

SPPA's Operations Information Technology ("OIT") System comprises a Network Management and Customer Service ("NMACS"), an Outage Management System ("OMS"), Enterprise Asset Management System ("EAM") and a Gas and Electricity Mapping System ("GEMS"). NMACS keeps records of substations and equipment and their maintenance records for asset management and maintenance planning. OMS supports the operation of the Electricity Service Center and monitors progress of supply restorations. GEMS provides graphical information of network assets for network maintenance, cable fault location, outage management and network planning.

Maintenance of Electricity Transmission and Distribution Network

The Electricity T&D Group carries out comprehensive maintenance programs to maintain its electricity transmission and distribution assets in good condition, including a condition-based maintenance regime and various condition monitoring programs.

Network maintenance is performed by SP Group's employees, external service providers, or a combination of both. SP Group regularly monitors the performance and quality of its external contractors. Refurbishment may be required as an asset approaches the end of its useful life span. Refurbishment usually involves the replacement of parts of assets of the electricity transmission and distribution network.

The condition-based maintenance strategy employs diagnostic techniques to monitor the condition and performance of network equipment and cables to help prevent failures that could lead to outages and voltage dips. SP Group believes that the Electricity T&D Group's comprehensive condition monitoring program enables incipient faults to be detected early and corrective action to be taken before full-blown failures occur. When failures do occur, they are attended to and repair work is carried out promptly to maintain a high level of network operational readiness. Thorough investigations are also carried out on network incidents for identification of root causes, allowing the formulation of both general and specific remedies to prevent recurrences.

Enhancement of Electricity Transmission and Distribution Network

SPPA is required to plan and develop its electricity transmission and distribution network to ensure that the reliability of electricity supply meets the standards prescribed by the EMA. Area load forecasting is carried out, taking into consideration new loads and existing loads on SPPA's electricity transmission and distribution network, to identify areas where network reinforcement, reconfiguration or upgrading is necessary.

SPPA carries out development and upgrades to its electricity transmission and distribution network in line with planning criteria set forth in the Transmission Code administered by the EMA. In addition, all electricity transmission network expansion and renewal projects are subject to prior endorsement by the PSO and approval by the EMA.

In order to meet the increase in demand for electricity in Singapore forecasted by the EMA, SP Group has invested heavily in advanced technology and equipment for the upgrading and expansion of SPPA's electricity transmission and distribution network (see "Management's Discussion and Analysis of Financial Condition and Results of Operations — Capital Expenditure").

SPPA will, on an ongoing basis, be replacing its aging 230kV and 66kV circuits as well as equipment as such circuits and equipment reach the end of their respective useful lives.

Jurong Island and Tuas are major industrial hubs with a concentration of petroleum, petrochemical and supporting industries as well as major generation companies. There are substantial developments in these areas with generation capacities and load demand expected to increase. SPPA is developing new network infrastructure, including 400kV, 230kV and 66kV substations and associated network circuits to meet these developments.

As part of the national agenda to develop underground space, URA and SPPA have identified a pilot project at the Pasir Panjang area in Singapore for the development of a 230kV underground substation. This 230kV underground substation is being developed as part of a development project comprising an underground transmission substation, SPPA's operational support center and a commercial office tower with ancillary retail space to be built above the underground substation.

The utility components, the underground substation and the operational support center, will be owned by SPPA (the commercial office tower and ancillary retail space will be owned by Labrador Real Estate Pte Ltd ("LRE"), a wholly-owned subsidiary of SP, and operated as part of the real estate business, as described in more detail in the section " — Other Businesses — Real Estate").

The underground substation that is planned to replace the existing above ground 230kV substation is expected to service the Labrador, Buona Vista, Pasir Panjang and Keppel areas in Singapore. The operational support center is planned to provide space to house SPPA's emergency response units in charge of responding to power outages and of carrying out maintenance work to support its network.

The underground substation is expected to enhance the long-term reliability and efficiency of electricity supply to meet future needs, while supporting Singapore's masterplan which includes the undergrounding of utility buildings.

400kV Transmission Network

Work on the installation of an ultra-high-voltage 400kV transmission system commenced in 1995 in order to add new transmission capacity to meet the rising demand for electricity in Singapore, provide for more economic electricity transmission and enhance the fault-handling capability of SPPA's transmission network. Four 400kV substations and their associated 400kV circuits were progressively commissioned between 1998 and 2014 to transport bulk electricity from western Singapore to load centers in central and eastern regions of Singapore.

West Jurong Island 400kV Substation is scheduled to be commissioned in the second half of 2018 to meet the upcoming developments in Jurong Island.

230kV Transmission Network

SPPA's 230kV transmission network supplies 23 supply zones. When load increases in a specific zone, this increase can be met by transferring load to adjacent 230kV supply zones, increasing capacity of existing substation or developing a new 230kV substation in that supply zone.

66kV Transmission Network

SPPA's 66kV transmission network is used for the distribution of power from 230kV primary sources to the area load centers to meet regional load growth. New 66kV substations have been commissioned in various parts of Singapore to serve industrial, commercial and residential projects.

Other Network Enhancement Projects

Other network enhancement projects include the upgrading of SPPA's SCADA system, which remotely controls and monitors its entire 22kV network and part of its 6.6kV networks to ensure reliable electricity supply.

Transmission Cable Tunnels

Due to land scarcity, it has become increasingly difficult to secure a transmission corridor in Singapore for cable installation. In order to provide a long-term solution to secure the cable corridors for future bulk power transmission to meet the ongoing renewal and growth needs, an optimal solution is to build cable tunnels. The Electricity T&D Group has planned to progressively develop a cable tunnel network infrastructure in Singapore to secure underground space for the installation of 400kV and 230kV cables to support network development and renewal plans. Cable tunnels at Seraya, Tuas, Senoko and Harbour Drive had been built.

The Electricity T&D Group has embarked on the design and construction of the Jurong Island-Pioneer cable tunnel. It is planned in conjunction with the new 400kV substation in Jurong Island and would house the circuits from Jurong Island to mainland. The physical construction of the tunnel has been completed.

Tunnels owned under the SPCIT Trust

In addition to the projects described, a trust (known as the "SP Cross Island Tunnel Trust" or "SPCIT Trust") has been established to undertake the construction and development of two tunnels in Singapore, a 16.5km East to West tunnel and a 18.5km North to South tunnel with a typical depth of 40m to 60m each (each, a "Tunnel", and collectively, "Tunnels") for the installation of cables for renewal and extension of the 400kV and 230kV transmission networks. The physical construction of these two tunnels has been completed. The cost of this project is estimated to be approximately S$2 billion. SPPA is the trustee-manager of the SPCIT Trust (the "Trustee-Manager") and all of the units in the SPCIT Trust are held by Singapore Power Limited. See " — SPPA's Electricity Licenses — Electricity Transmission Licence — Conditions of the Electricity Transmission Licence — Additional Activities".

SPPA (in its personal capacity) (the "Tunnel User") entered into a Tunnel Services Agreement with SPPA (in its capacity as the Trustee-Manager of the SPCIT Trust) on June 7, 2013 (the "Tunnel Services Agreement").

The term of the Tunnel Services Agreement commenced from June 7, 2013 and ends on the 40th anniversary of the date on which the Tunnels are completed (as determined in accordance with the terms of the Tunnel Services Agreement) (both dates inclusive), unless terminated earlier in accordance with the terms of the Tunnel Services Agreement ("Term").

The Tunnel Services Agreement provides that, during the period commencing from the date on which the Tunnels are completed until the termination of the Term, the Tunnel User shall be provided with, among others:

(i) the right to use, occupy and physically access the Tunnels and such structures and/or buildings comprising part of the Tunnels (or such spaces within such structures and buildings); and

(ii) services relating to the maintenance and repair of the Tunnels.

SPPA collects the total use of system charges chargeable or charged by SPPA to consumers, including the tariff for the use of the Tunnels (the "Tunnel Tariff"), and pays the Tunnel Tariff to the SPCIT Trust under the Tunnel Services Agreement.

SPPA's Electricity Licences

Overview

Under the Electricity Act, an electricity licence is required by any person to, among others, engage in the transmission of electricity, transmit electricity for and on behalf of a Transmission Licensee or provide any market support services. This section sets out a brief summary of the conditions of the electricity licences held by subsidiaries within SP Group to carry out such activities.

Electricity Transmission Licence

The word "transmit" is defined in the Electricity Act as conveying electricity by means of a transmission system from an electrical plant to a substation; from one electrical plant to another or from one substation to another; or from a substation or electrical plant to the electrical installation serving the premises of a consumer or, where such premises are not served by an electrical installation, from a substation or electrical plant directly to such premises. The Electricity Act makes it an offense to transmit electricity unless authorized to do so by an electricity licence granted by the EMA.

SPPA, through the Transmission Licence, is currently the sole entity licensed to engage in the transmission of electricity in Singapore. The Transmission Licence was issued by the EMA on November 3, 2003.

The Electricity Act provides that it is SPPA's duty, as a Transmission Licensee to (a) develop and maintain a reliable, efficient, coordinated and economical electricity transmission system in accordance with such applicable codes of practice and other standards of performance as may be issued or approved by the EMA under the Electricity Act; (b) facilitate competition in the generation and sale of electricity by making SPPA's transmission system available to persons authorized to generate, trade or retail electricity or to provide market support services on terms which neither prevent nor restrict such competition; and (c) provide non-discriminatory access to SPPA's transmission system for the supply and use of electricity in accordance with the Electricity Act, the Transmission Licence and the Electricity Market Rules. Additionally, it is SPPA's duty as an Electricity Licensee to ensure that it will not do or not omit to do any act which will adversely affect, directly or indirectly, the security and stability of the electricity supplied by it or any other person to consumers.

The EMA may not terminate SPPA's Transmission Licence except by giving SPPA 25 years' notice or otherwise revoking the Transmission Licence in accordance with the Electricity Act (including where the EMA is satisfied that SPPA has gone into compulsory liquidation or voluntary liquidation other than for the purpose of amalgamation or reconstruction, or the public interest or security of Singapore requires). See "Industry and Regulation — Electricity Industry in Singapore — Powers of the EMA to Control Electricity Licensees". Any request by SPPA to terminate the Transmission Licence is subject to the approval of the EMA and SPPA continues to be bound by the terms of the Transmission Licence until such time as the EMA notifies SPPA in writing of such approval. Under the Electricity Act, the Transmission Licence is not transferable to any other person without the approval in writing from the EMA and any purported transfer of the Transmission Licence shall be void.

Conditions of the Electricity Transmission Licence

The main conditions contained in the Transmission Licence include those set out below.

Authorized Activities

SPPA is licensed to conduct the Electricity Authorised Business, and may, upon the EMA's approval in writing and subject to such conditions as the EMA may impose at the time of approval or any time thereafter, engage in allowed activities that (a) use an existing competency of SPPA; and (b) provide synergies with the activities comprised in the Transmission Agent Business. Save as aforesaid, SPPA is not permitted to engage directly or indirectly in any other business activity or voluntarily commit to any liability in relation to such other business activity. SPPA must also procure that each of its subsidiaries and related enterprises do not engage, or seek to obtain from the EMA an electricity licence permitting it to engage, directly or indirectly in any other business activities or voluntarily commit to any liability in relation to such other business activities.

Dealings with Subsidiaries/Related Enterprises

In any event, SPPA is not permitted to provide or receive any cross-subsidies between the Electricity Authorised Business and any other business or allowed activity of SPPA, or any of SPPA's subsidiaries or related enterprises, except as the EMA may otherwise approve in writing. SPPA is not permitted to unduly discriminate in favor of its subsidiaries or related enterprises and, except with the written consent of the EMA, must ensure that all its dealings with its subsidiaries and related enterprises are on an arm's length basis.

Compliance with Electricity Market Rules

SPPA has to, at all times, comply with the provisions of the Electricity Market Rules applicable to SPPA. In addition, SPPA shall be required to apply to EMC for registration (i) as a market participant, and (ii) of the facilities and assets comprised within SPPA's transmission system, and shall notify the EMA of such registration.

Separate Accounts for Electricity Authorised Business

SPPA has to prepare separate accounts for the Electricity Authorised Business and provide the EMA with its accounting statements, and procure, in respect of its accounting statements, a report by SPPA's auditor addressed to the EMA, stating its opinion as to whether SPPA's accounting statements have been properly prepared in accordance with the Transmission Licence and whether they give a true and fair view of the revenues, costs, assets, liabilities, reserves and provisions of, or reasonably attributable to, the Electricity Authorised Business. SPPA is required to deliver to the EMA, a copy of the accounting statements together with the auditors' report no later than five months after the end of the relevant financial period.

Confidential Information

All information received by SPPA which relates to the Electricity Authorised Business (other than information which is already publicly available) is confidential and SPPA has to take reasonable measures to protect such information. SPPA cannot use such information for (i) any commercial advantage in the provision of any service other than a service comprised in the Electricity Authorised Business or (ii) any purpose other than that for which such information was provided or for a purpose permitted by the Transmission Licence, any applicable code of practice or the Electricity Market Rules. If requested by the EMA, SPPA is required to procure from its auditors a certificate to confirm that SPPA is in compliance with its confidentiality obligations under the Transmission Licence.

Investigation of Offences

If SPPA becomes aware that it may not have complied with any of the conditions of the Transmission Licence, or suspects that any other Electricity Licensee has breached its electricity licence or any applicable legislation, SPPA is required to report the same to the EMA and provide the EMA with such assistance and cooperation in connection with any prosecution proceedings arising therewith.

Licence Fee

SPPA pays the EMA an annual licence fee in respect of the Transmission Licence. The amount of the fee is determined by the EMA (in accordance with the terms and conditions as set out in the Transmission Licence) on or before April 1 of each year, and is to be paid by SPPA by April 30 of each year. If SPPA fails to pay the licence fee in full when due, the EMA may require SPPA to pay late payment interest on the unpaid amount.

Governance

None of SPPA's directors may be employed by or hold any office or engagement with any person authorized by an electricity licence or exempted from the obligation to hold an electricity licence, to engage in the generation, retail, import or export of electricity or trade in any wholesale electricity market. None of SPPA's directors may be employed by or hold any office or engagement with any person authorized by a gas licence or exempted from the obligation to hold a gas licence, or to engage in the shipping or retail of gas, production of town gas or the import of natural gas or liquefied natural gas. The EMA may, on such terms as it may specify in writing and notify to SPPA, waive or vary any of such requirements.

SPPA is also not permitted to directly or indirectly through its related enterprises acquire or hold any shares in any person authorized by an electricity licence or a gas licence, or exempted from the obligation to hold an electricity licence or a gas licence, to engage in any such activities. The EMA may, on such terms as it may specify in writing and notify to SPPA, waive or vary any of such requirements.

Notification of Change in Shareholding

As a Transmission Licensee, SPPA is required to comply with Section 30B of the Electricity Act in respect of changes in its shareholding structure. See "Industry and Regulation — Electricity Industry in Singapore — Powers of the EMA to Control Electricity Licensees".

Access to the Electricity Transmission and Distribution Network

SPPA must provide non-discriminatory access to persons similarly situated for services comprised within the Electricity Authorised Business and connect any person who wishes to connect to its transmission system. SPPA is also obliged to provide services as may be required to allow connection, disconnection and reconnection to or from its transmission system, and install, maintain and verify the accuracy of meter installations, all in accordance with the Electricity Act, the Transmission Licence, the Electricity Market Rules and the relevant codes, as applicable.

Purchase of Electricity

SPPA is not permitted to procure or purchase electricity except to the extent required to conduct the Electricity Authorised Business or any allowed activity. The EMA may, on such terms as it may specify in writing and notify to SPPA, waive or vary any of such requirements.

Purchase of Goods and Services

SPPA is required to, in the conduct of the activities comprised in the Electricity Authorised Business, purchase such goods and/or services as may be reasonably required by SPPA upon the most economically advantageous terms reasonably obtainable by SPPA at the relevant time having regard to all relevant business criteria, and is not permitted to unduly discriminate between suppliers of the goods and/or services. This does not apply to the purchase of any goods and/or services in respect of which the terms and conditions of purchase are prescribed or imposed by the Transmission Licence, the Electricity Market Rules, any applicable code of practice or arrangement approved by the EMA.

Prices for SPPA's Electricity Transmission Services

SPPA's charges for the provision of electricity transmission services are set annually based on a cost recovery methodology, which is developed by SPPA and approved by the EMA, and is subject to a regulated price cap. The EMA's approval must also be obtained for any revisions to the charging structures and charges. SPPA is required to publish the approved charges with such detail as shall be necessary to enable any person to ascertain the fees and charges to which he would become liable for the provision of SPPA 's electricity transmission services.

Developmental Work/Development of Codes of Practice

The EMA may from time to time require SPPA to perform or participate in research and development activities, and to co-operate with other Electricity Licensees to perform research and development activities in relation to the conduct of the Electricity Authorised Business. SPPA is also required to participate in the development of any code of practice and standard of performance to be issued by the EMA if such code of practice or standard of performance will directly or indirectly affect the Electricity Authorised Business.

SPPA may propose modifications to a code of practice or standard of performance that is in force at the relevant time by notifying the EMA in writing of the proposed modification. The EMA may review the proposed modification and determine whether the proposed modification should be made.

With the anticipated proliferation of intermittent generation, SP Group is test bedding various ESS and new technologies to understand its functionalities and applications to safeguard the stability and reliability of the electricity network grid. SP Group is also exploring to collaborate with industry members and institutions to deploy microgrid solutions to understand evolving trends and their resulting implications.

Dealing(s) with SP PowerGrid

SPPA is required under the Transmission Licence to appoint only SP PowerGrid, who is licensed by the EMA, to meet SPPA's requirements for management services of the Electricity Authorised Business and allowed activities, and for the operation and maintenance of its assets. The SPPA Management Services Agreement sets out the working and operational requirements between SPPA and SP PowerGrid in relation to the Electricity Authorised Business. The EMA may, on such terms as it may specify in writing and notify to SPPA, waive or vary any of such requirements.

Additional Activities

SPPA has been authorized to carry out various ancillary activities under the Transmission Licence, including establishing a business trust (the "SPCIT Trust"), carrying on the business of acting as a trustee-manager of the SPCIT Trust, and performing the role of the trustee-manager of the SPCIT Trust. Such role includes carrying on (in SPPA's capacity as trustee-manager of the SPCIT Trust) the business of constructing, developing, owning, operating, maintaining and managing a North-South cable tunnel, East-West cable tunnel and the related infrastructure, equipment and properties (collectively, the "Tunnels"). Pursuant to such authorized activity, SPPA is required to, among others, comply with any directions or instructions relating to the Tunnels which may be issued by the EMA and obtain the EMA's prior written approval for the terms and conditions of the Tunnel Services Agreement governing the use of the Tunnels and the agreement governing the appointment of the Manager to provide services to SPPA (in SPPA's capacity as trustee-manager of the SPCIT Trust) in relation to, among others, the carrying on of the business of constructing, developing, owning, operating, maintaining and managing the Tunnels ("TM Management Services Agreement").

Electricity Transmission Agent Licence

SP PowerGrid, through the Transmission Agent Licence, is licensed to transmit electricity for and on behalf of SPPA. The Transmission Agent Licence was issued by the EMA on July 27, 2006.

The Transmission Agent Licence shall terminate upon the expiry or earlier termination of the Transmission Licence granted to SPPA, unless revoked by the EMA in accordance with the Electricity Act (including where the EMA is satisfied that SP PowerGrid has gone into compulsory liquidation or voluntary liquidation other than for the purpose of amalgamation or reconstruction, or the public interest or security of Singapore so requires), see "Industry and Regulation — Electricity Industry in Singapore — Powers of the EMA to Control Electricity Licensees". Any request by SP PowerGrid to terminate the Transmission Agent Licence is subject to the approval of the EMA and SP PowerGrid shall continue to be bound by the terms of the Transmission Agent Licence until such time as the EMA notifies SP PowerGrid in writing of such approval. Under the Electricity Act, the Transmission Agent Licence is not transferable without the approval in writing of the EMA and any purported transfer of the Transmission Agent Licence shall be void.

Conditions of Transmission Agent Licence

The main conditions contained in the Transmission Agent Licence include those set out below.

Authorized Activities

SP PowerGrid is licensed to conduct the Transmission Agent Business and may, upon the EMA's approval in writing and subject to such conditions as the EMA may impose at the time of approval or any time thereafter, engage in allowed activities that (a) use an existing competency of SP PowerGrid; and (b) provide synergies with the activities comprised in the Transmission Agent Business. Save as aforesaid, SP PowerGrid is not permitted to engage directly or indirectly in any other business activities or voluntarily commit to any liability in relation to such other business activities. SP PowerGrid must also procure that each of its subsidiaries and related enterprises do not engage, or seek to obtain from the EMA an electricity licence permitting it to engage, directly or indirectly in any other business activities or voluntarily commit to any liability in relation to such other business activities.

Dealings with Subsidiaries/Related Enterprises

In any event, SP PowerGrid is not permitted to provide or receive any cross-subsidies between the Transmission Agent Business and any other business or allowed activity of SP PowerGrid, or any of SP PowerGrid's subsidiaries or related enterprises except as the EMA may otherwise approve in writing. SP PowerGrid is not permitted to unduly discriminate in favor of its subsidiaries or related enterprises and, except for the SPPA Management Services Agreement or with the written consent of the EMA, must ensure that all its dealings with its subsidiaries and related enterprises are on an arm's length basis.

Compliance with Electricity Market Rules

SP PowerGrid has to, at all times, when acting for or on behalf of SPPA, conduct the Transmission Agent Business in a manner consistent with the provisions of the Electricity Market Rules applicable to SPPA. SP PowerGrid is not required to register as a market participant under the Electricity Market Rules.

Separate Accounts for Transmission Agent Business

SP PowerGrid has to prepare separate accounts for the Transmission Agent Business and provide the EMA with its accounting statements, and procure, in respect of its accounting statements, a report by SP PowerGrid's auditors addressed to the EMA, stating its opinion as to whether SP PowerGrid's accounting statements have been properly prepared in accordance with the Transmission Agent Licence and whether they give a true and fair view of the revenues, costs, assets, liabilities, reserves and provisions of, or reasonably attributable to, the Transmission Agent Business. SP PowerGrid is required to deliver to EMA a copy of the accounting statements together with the auditors' report no later than five months after the end of the relevant financial period.

Confidential Information

All information received by SP PowerGrid which relates to the Transmission Agent Business (other than information which is already publicly available) is confidential and SP PowerGrid has to take reasonable measures to protect such information. SP PowerGrid cannot use such information for (i) any commercial advantage in the provision of any service other than a service comprised in the Transmission Agent Business; or (ii) any purpose other than that for which such information was provided or for a purpose permitted by the Transmission Agent Licence, any applicable code of practice or the Electricity Market Rules. If requested by the EMA, SP PowerGrid is required to procure from its auditors a certificate to confirm that SP PowerGrid is in compliance with its confidentiality obligations under the Transmission Agent Licence.

Investigation of Offences

If SP PowerGrid becomes aware that it may not have complied with any of the conditions of the Transmission Agent Licence, or suspects that any other Electricity Licensee has breached its electricity licence or any applicable legislation, SP PowerGrid is required to report the same to the EMA and provide the EMA with such assistance and co-operation in connection with any prosecution proceedings arising therewith.

Licence Fee

SP PowerGrid pays the EMA an annual fee in respect of the Transmission Agent Licence. The amount of this fee is determined by the EMA (in accordance with the terms and conditions as set out in the Transmission Agent Licence) on or before April 1 of each year, and is to be paid by April 30 of each year. If SP PowerGrid fails to pay the licence fee in full when due, the EMA may require SP PowerGrid to pay late payment interest on the unpaid amount.

Governance

None of SP PowerGrid's directors may be employed by or hold any office or engagement with any person authorized by an electricity licence or exempted from the obligation to hold an electricity licence, to engage in the generation, retail, import or export of electricity or trade in any wholesale electricity market. None of SP PowerGrid's directors may be employed by or hold any office or engagement with any person authorized by a gas licence or exempted from the obligation to hold a gas licence, to engage in the shipping or retailing of gas, production of town gas or the import of natural gas or liquefied natural gas. The EMA may, on such terms as it may specify in writing and notify to SP PowerGrid, waive or vary any of such requirements.

SP PowerGrid is also not permitted to directly or indirectly through its related enterprises acquire or hold any shares in any person authorized by an electricity licence or a gas licence or exempted from the obligation to hold an electricity licence or a gas licence, to engage in any such activities. The EMA may, on such terms as it may specify in writing and notify to SP PowerGrid, waive or vary any of such requirements.

Notification of Change in Shareholding

SP PowerGrid is required to inform the EMA of changes in its shareholding structure as required pursuant to Section 30B of the Electricity Act. See "Industry and Regulation — Electricity Industry in Singapore — Powers of the EMA to Control Electricity Licensees".

Performance Monitoring

SP PowerGrid is required to submit to EMA, at EMA's request and in accordance with any process or principles EMA may issue, a proposal in respect of the performance measures against which SP PowerGrid's performance in conducting the Transmission Agent Business and of SPPA in conducting the Electricity Authorised Business may be measured. SP PowerGrid is also required to collect and report statistics of other performance measures as may be requested by EMA in writing and submit to EMA, within 90 days after the end of each financial year, a report indicating the performance of SP PowerGrid in respect of its Transmission Agent Business and of SPPA in conducting the Electricity Authorised Business during the previous financial year against the agreed performance measures.

Purchase of Electricity

SP PowerGrid is not permitted to procure or purchase electricity except to the extent required to conduct the Transmission Agent Business or any allowed activity. The EMA may, on such terms as it may specify in writing and notify to SP PowerGrid, waive or vary any of such requirements.

Purchase of Goods and Services

SP PowerGrid is required to, in the conduct of the activities comprised in the Transmission Agent Business, purchase such goods and/or services as may be reasonably required by SP PowerGrid upon the most economically advantageous terms reasonably obtainable by SP PowerGrid at the relevant time having regard to all relevant business criteria, and is not permitted to unduly discriminate between suppliers of the goods and/or services. This does not apply to the purchase of any goods and/or services in respect of which the terms and conditions of purchase are prescribed or imposed by the Transmission Agent Licence, the Electricity Market Rules, any applicable code of practice or arrangement approved by the EMA.

Developmental Work/Development of Codes of Practice

The EMA may from time to time require SP PowerGrid to perform or participate in research and development activities and co-operate with other Electricity Licensees to perform research and development activities in relation to the conduct of the Transmission Agent Business. SP PowerGrid has to participate in the development of any code of practice or standard of performance if it will directly or indirectly affect the Transmission Agent Business of SP PowerGrid or the Electricity Authorised Business of SPPA.

SP PowerGrid may propose modifications to a code of practice or standard of performance that is in force at the relevant time by notifying the EMA in writing of the proposed modification. The EMA may review the proposed modification and determine whether the proposed modification should be made.

Dealing(s) with SPPA

SP PowerGrid is required to ensure that the SPPA Management Services Agreement and any modifications thereto do not affect the ability of SP PowerGrid to discharge its responsibilities under the Transmission Agent Licence. SP PowerGrid has to give the EMA no less than 30 days' prior written notice of any modification to the terms and conditions of the SPPA Management Services Agreement and shall not terminate such agreement without EMA's prior written consent. The EMA may, on such terms as it may specify in writing and notify to SP PowerGrid, waive or vary any of such requirements.

Additional Activities

SP PowerGrid has been authorized to carry out various ancillary activities under the Transmission Agent Licence, including (a) providing services to SPPA for SPPA's (i) establishment of the SPCIT Trust and for (ii) carrying on of the business of acting as trustee-manager of the SPCIT Trust, and (b) carrying on, for SPPA (in its capacity as trustee-manager of the SPCIT Trust), the business of constructing, developing, operating, maintaining and managing the Tunnels. Pursuant to such authorized activity, SP PowerGrid is required to, among others, comply with any directions or instructions relating to the Tunnels which may be issued by the EMA and obtain the EMA's prior written approval for the terms and conditions of the TM Management Services Agreement.

Agreements with Market Participants

Pursuant to SPPA's Transmission Licence, SPPA has entered into various agreements with other participants in the Singapore electricity market. With respect to the terms and conditions of its services and network access, SPPA has entered into (amongst other things):

- an operating agreement with the PSO to allow the latter to direct the operations of SPPA's transmission network system at voltage levels of 66kV and above. Agreed procedures also exist between SPPA and the PSO with respect to the connection and disconnection of network equipment;

- a connection agreement with individual Generation Licensees to provide terms and conditions applicable to the construction and maintenance of connections between electricity generation plants and SPPA's transmission network;

- a use of system agreement with any Retail Licensee who choose to have retailer consolidated billing for the payment of the transmission charges on behalf of the contestable consumers; and

- a connection agreement with any consumer whose facilities are to be connected to SPPA's transmission network. The form of the agreement with consumer depends upon the nature of the installation to be connected and the voltage level at which it is connected.

Competition

The Electricity Authorised Business is subject to extensive regulation by the EMA. SPPA is dependent on the retention of its Transmission Licence for the conduct of its business. SPPA currently holds the sole Transmission Licence in Singapore granted by the EMA, and is therefore effectively the only choice for electricity transmission and distribution services for electricity consumers in Singapore.

No assurance can be given that the EMA will not fundamentally alter SPPA's business environment or affect its business in the future. For example, the EMA has the power to:

- authorize a competing Transmission Licensee to operate other electricity transmission and distribution facilities in Singapore;

- permit certain classes of consumers to bypass SPPA's electricity transmission and distribution network and obtain electricity supplies through direct connections to electricity generation plants; and

- make changes to the regulatory framework for the energy industry or the code of practices for Electricity Licensees from time to time.

Should any of these actions be implemented, SPPA's revenues could be reduced and its business and results of operations could be adversely affected. Such actions could also adversely affect SPPA's network utilization rate and result in it possessing overbuilt or underutilized network assets and capacity.

Electricity consumers are permitted under the present regulatory regime to self-generate electricity for their own needs. Such self-generated electricity, known as "distributed generation" or "renewable generation" (such as solar energy) is not transported through SPPA's electricity transmission and distribution network and does not generate use of system charges for SPPA, other than certain fixed and variable charges related to such consumers remaining connected to its network for back-up electricity purposes.

Electricity consumers are also permitted in certain circumstances and subject to certain conditions (in each case as set out in EMA's prevailing policies and guidelines) to bypass SPPA's electricity transmission and distribution network by receiving electricity supplies through direct connections to electricity generation plants. In such cases, electricity obtained by consumers through bypass is not transported through SPPA's electricity transmission and distribution network and does not generate use of system charges for SPPA other than certain fixed and variable charges related to such consumers remaining connected to its network for back-up electricity purposes.

Should sufficiently large numbers of SPPA's present consumers self-generate electricity for their own needs or should sufficiently large numbers of its consumers bypass its electricity transmission and distribution network by connecting directly to electricity generation plants, there can be no assurance that such distributed generation or network bypass will not deprive SPPA of significant transmission revenues or have a material adverse effect on SP Group's business operations and financial performance.

Consumers, Billing and Collection

The electricity consumers served by SPPA's electricity transmission and distribution network comprise a diverse mix of industrial, commercial and residential consumers. Diversity in the consumer base helps to shield SPPA from severe fluctuations in electricity demand resulting from downturns in specific industries. No single consumer represents a significant percentage of SP Group's revenues or capacity. For the categorization of SPPA's consumers, see " — Electricity Transmission and Distribution Operations".

SPPA does not provide billing or settlement services for SPPA's use of system charges or other charges. Since January 1, 2003, SP Services, a wholly-owned subsidiary of SP, has been the sole MSSL in the Singapore electricity market. SPPA delegates its billing and collection functions to SP Services, as currently required by the terms of its Transmission Licence. The calculation, billing and collection of the use of system charges and connection application processing services is performed by SP Services. This billing and collection arrangement is currently mandated as a condition of SPPA's Transmission Licence and will continue for such period as the EMA considers fit, after which SPPA shall be entitled to continue with such arrangement or make any alternative arrangements as may be permitted by its Transmission Licence. In addition, SP Services reads SPPA's meters in its capacity as MSSL.

Contestable consumers which are designated as "retailer consolidated billing" consumers and which purchase electricity from Retail Licensees generally receive bills from their Retail Licensees which itemize charges for electricity provided by the Retail Licensees separately from charges for electricity transmission and distribution services provided by SPPA. Contestable consumers, which are either designated as "retailer split billing" consumers or direct market participants, are responsible for settling charges for electricity transmission and distribution services provided by SPPA and receive bills issued by SP Services on SPPA's behalf. Non-contestable consumers receive bills from SP Services, acting in its capacity as MSSL, which do not separately itemize charges for electricity supply and for electricity transmission and distribution services.

Tariff Regulatory Framework for the Electricity T&D Business

Performance-Based Regulation and Price Controls set by the EMA

The Electricity Authorised Business is subject to extensive legislation. SPPA's use of system charges for the transmission and distribution of electricity are regulated and approved by the EMA pursuant to regulatory price controls. Based on an average taken from FY16 to FY18, 94% of the Electricity Authorised Business' annual revenue and other income was derived from its regulated electricity transmission revenue. Revenue for the Electricity Authorised Business, which is regulated by the EMA using a building block calculation which has been adopted since 2003, is computed as the value of the regulated asset base for the Electricity

Authorised Business multiplied by the regulatory WACC for the Electricity Authorised Business, to which operating expenses, depreciation and taxes are added. The WACC for the Electricity Authorised Business is 5.76% (nominal after tax) under the current five-year regulatory period which commenced on April 1, 2015 and the regulated asset base for the Electricity Authorised Business was S$9.2 billion. Such regulated asset base used for use of system charges computation excludes customer contributions.

The regulatory framework is performance-based, which allows the Electricity T&D Group to retain, during each regulatory period, the benefits of capital and operating efficiency gains achieved in such regulatory period. These benefits are in the subsequent regulatory period shared equally between consumers and the Electricity T&D Group.

The WACC for the Electricity Authorised Business applicable in future five-year regulatory periods may be higher or lower. The opening regulated asset base for the Electricity Authorised Business was determined by subtracting the deferred revenue balance from the net book value of fixed assets for the Electricity Authorised Business, where the deferred revenue balance represents SPPA's cumulative customer contributions. SPPA is incentivized to reduce its cost of capital by increasing leverage and achieving an optimal capital structure.

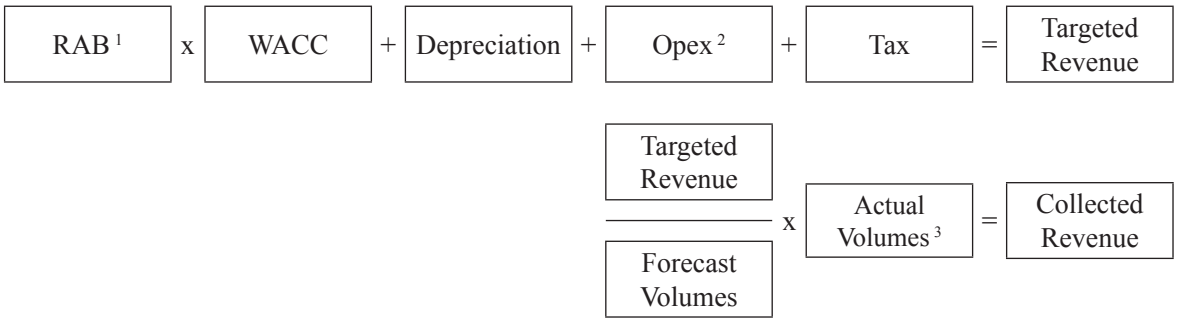
SPPA's five-year building block revenue requirement forecast is translated into the five-year price control formula based on five-year forecasts of electricity transmitted and distributed.

SPPA's average use of system charges are capped pursuant to the five-year price control formula set by the EMA. In setting the annual price caps, the key objective is to ensure that the final resulting use of system charges deliver a competitive and efficient outcome to its consumers.

SPPA has flexibility (subject to regulatory approval) to set the use of system charges with respect to its various consumer segments, and to vary the structure of its use of system charges between such consumer segments, as long as the average use of system charges is consistent with the price controls established by the EMA.

Under the regulatory framework, SPPA is exposed to certain volume risk. If the volume of electricity that SPPA transmits or distributes is materially different from the level assumed in the building block calculation, SPPA's revenues will be affected. SPPA absorbs any revenue deviations caused by fluctuations in total volume transmitted or distributed each year within a +/-2.0% deviation from the original volume forecast incorporated into the building block forecast. If the volume deviation is outside this 2.0% range, the EMA will adjust SPPA's price controls within the current regulatory period to compensate for such variance in volume.

SPPA also takes the risk that the electricity demand projected with respect to particular consumer segments will be different from that assumed in the annual regulatory price cap. The EMA does not apply any limit to the risk arising from changes in demand mix between SPPA's customer segments, regardless of the total volume deviation from the total volume assumed in the regulatory volume forecast.



Note 1: This may include an efficiency carry-over to reward capital expenditure savings achieved in the previous period.

Note 2: This may include an efficiency carry-over to reward operational expenditure savings achieved in the previous period.

Note 3: If the Actual Volume deviates more than +/- 2.0% from the Forecast Volume, the EMA will adjust SPPA's price controls within the current regulatory period to compensate for such variance in Actual Volume.

The EMA is conducting, and may from time to time conduct, consultations on matters, such as the parameters relating to application of the Electricity T&D Group's building block calculation, which could result in regulatory changes that may affect SP Group's business, revenues and results of operations. No assurance can be given that such regulatory changes (if and when they come into effect) will not have a material adverse effect on the Electricity T&D Group's business, revenues or results of operations.

Revenue from the Electricity T&D Business

Revenue consists of use of system charges. Revenue is recognized when electricity is delivered to consumers. Allowed revenue is calculated by multiplying the units of electricity transmitted or distributed for each consumer segment over a given period by the use of system charges for the respective consumer segment in accordance with the price regulation framework approved by EMA. Revenue allowed by the EMA (in accordance with the price regulation framework) is adjusted based on the services rendered and deferred over the regulatory period. At the end of each regulatory period, any outstanding balance is taken to profit or loss as revenue.

The EMA approves the use of system charges to be charged to consumers in respect of any period of time. These use of system chargers are determined by the Electricity T&D Group's projected capital and operating expenditures. SPPA collects the total use of system charges chargeable or charged by SPPA to consumers, including the Tunnel Tariff, and pays the Tunnel Tariff to the SPCIT Trust under the Tunnel Services Agreement.

SPPA has flexibility (subject to regulatory approval) to set the use of system charges with respect to the various consumer segments, and to vary the use of system charges between such consumer segments, as long as the average use of system charge is consistent with the price controls established by the EMA.

Use of System Charges

Use of system charges generate a substantial portion of the Electricity T&D Group's total revenues, and generally include a number of variable components which are usage-sensitive as well as fixed components which are not usage- sensitive. The EMA has approved SPPA's implementation of different applicable use of system charges by voltage, with different charges in effect with respect to Ultra High Tension, Extra High Tension, High Tension — Large, High Tension — Small, Low Tension — Large and Low Tension — Small electricity consumers, reflecting SPPA's different cost of providing electricity transmission and distribution services to such classes of electricity consumers.

Ultra High Tension consumers are connected to SPPA's network at 230kV and above. These consumers are billed primarily for their Contracted Capacity by means of a Contracted Capacity Charge, which is a fixed charge based on the capacity that the consumer has requested. Ultra High Tension consumers are also billed for units of electricity consumed during peak hours and off-peak hours, and for other, relatively minor, charges such as the Uncontracted Capacity Charges and Reactive Power Charges.

Extra High Tension consumers are connected to SPPA's network at 66kV. Extra High Tension consumers pay charges similar to those of Ultra High Tension consumers, with the total use of system chargescomprising primarily of fixed charges.

High Tension consumers are connected to SPPA's network at 22kV or 6.6kV. Such consumers pay charges similar to those of Ultra High and Extra High Tension consumers, with the total use of system charges comprising primarily of fixed charges.

Low Tension consumers are connected to SPPA's network at 400V or 230V. SPPA's current use of system charges further distinguish between Low Tension — Large and Low Tension — Small consumers.

Low Tension — Large consumers are Low Tension consumers that are contestable and have TOD meters. These consumers are billed separately on the units they consume during the peak and off-peak hours, with a different rate applicable for peak and off-peak hours.

Low Tension — Small consumers are Low Tension consumers that are not contestable. Their metering does not distinguish between peak and off-peak consumption and they are charged a flat rate for all consumption. Unlike Ultra High, Extra High and High Tension consumers, Low Tension consumers do not pay Contracted Capacity, Uncontracted Capacity or Reactive Power Charges.

On March 20, 2015, SPPA received the regulatory price determination from the EMA for the regulatory period from April 1, 2015 to March 31, 2020.

The following table sets forth SPPA's use of system charges for the period April 1, 2018 to March 31, 2019, by consumer class. The use of system charges indicated exclude goods and services tax.

Use of System Charges effective from April 1, 2018[1]

Consumer Class	Contracted Capacity Charge (S$ per kW per month)[1]	Peak Period Charge (7.00 A.M. to 11.00 P.M.) (S¢ per kWh)	Off Peak Period Charge (11.00 P.M. to 7.00 A.M.) (S¢ per kWh)	Reactive Power Charge (S¢ per kVArh)[2]	Uncontracted Capacity Charge (S$ per kW per month)[3]	Uncontracted Standby Capacity Charge (S$ per kW per month ECCS)[5]		
						CCS[4]	Tier 1	Tier 2
Ultra High Tension Consumers	6.84	0.06	0.02	0.44	10.26	34.20	34.20	82.08
Extra High Tension Consumers	7.68	0.08	0.03	0.48	11.52	38.40	38.40	92.16
High Tension-Large Consumers	8.58	0.74	0.08	0.59	12.87	42.90	42.90	102.96
High Tension-Small Consumers	8.58	0.96	0.09	0.59	12.87	42.90	42.90	102.96
Low Tension-Large Consumers	–	5.31	3.99	–	–	–	–	–
Low Tension-Small Consumers	–	5.31	5.31	–	–	–	–	–

Notes:

(1) Applicable to the monthly total supply capacity (in kW) requested by the consumer at a metered intake supply point.

(2) Applicable to the amount of kVArh in excess of 62.0% of the consumer's total monthly consumption.

(3) Applicable to the monthly maximum electricity demand (in kW) in excess of the consumer's indicated Contracted Capacity. The excess demand is limited to 20.0% of the Contracted Capacity for consumers who choose to cap their electricity demand on the network.

(4) Applicable to consumers who choose to cap their demand on the network, in the event that the monthly electricity demand capacity (in kW) exceeds 120.0% of the consumer's indicated Contracted Capacity for more than 10 seconds continuously, due to the failure of the consumer's means of capping demand.

(5) Applicable to consumers who choose to cap their demand on the network, 2-tier Uncontracted Standby Capacity Charge applies as follows:

Tier 1: in the event that the demand (in kW) drawn from the network is between 120.0% and 200.0% of the contracted capacity for a duration of more than 100 seconds continuously.

Tier 2: in the event that the demand (in kW) drawn from the network exceeds 200.0% of the contracted capacity for a duration of more than 10 seconds continuously.

For more details on the use of system charges, please refer to "Industry and Regulation — Electricity Industry in Singapore — Electricity Sales and Consumption in Singapore" and "Management's Discussion and Analysis of Financial Condition and Results of Operations — Overview of Revenue and Expenses — Revenue".

Electricity Transmission and Distribution Network Performance Scheme

The EMA has imposed a network performance scheme, the Standards of Performance (the "SOP Scheme"), on SPPA since August 2004. This is an incident-based performance scheme with financial penalties for not meeting the set performance targets. The SOP Scheme applies to power failure incidents, supply restoration and quality of supply. The SOP Scheme with effect from July 1, 2012 is summarized in the table below. No material financial penalties have been paid by SPPA over the course of the last three financial years.

Service Dimension	Service Indicator	Performance Standard
Reliability of supply	Power failure incidents* caused by failure of, damage to, or operation of Transmission Licensee's equipment or cables	No power failure incidents*
Quality of supply	Voltage dip incidents* due to failure of, damage to, or operation of Transmission Licensee's equipment or cables	No voltage dip incidents*
Restoration of supply	Time taken to restore electricity supply for each power failure due to failure of, damage to, or operation of Transmission Licensee's equipment or cables rated at 22kV and below	Not exceeding 3 hours Not exceeding 2 hours in 90% of power failure incidents in each calendar month

** Only incidents where the Transmission Licensee is determined by the EMA to be at fault, would be counted.*

Source: EMA, June 29, 2012

Dimension	Description	Financial Penalty
Reliability of supply	Power failure caused by the failure of, damage to, or operation of Transmission Licensee's equipment or cables rated at 66kV and above	(i) First incident in the last 365 days - up to **S$1 million** (ii) Second incident in the last 365 days - up to **S$1.5 million** (iii) Third and subsequent incident in the last 365 days - up to **S$2 million**
	Power failure caused by the failure of, damage to, or operation of Transmission Licensee's equipment or cables rated at 22kV except for power transformers	(i) First incident in the last 180 days - up to **S$500,000** (ii) Second incident in the last 180 days - up to **S$750,000** (iii) Third and subsequent incident in the last 180 days - up to **S$1 million**
	Power failure caused by the failure of, damage to, or operation of Transmission Licensee's equipment or cables rated at 6.6kV and power transformers rated at 22kV	(i) First incident in the last 30 days - up to **S$50,000** (ii) Second and subsequent incidents in the last 30 days - up to **S$100,000**
Quality of supply	Voltage dip due to failure of, damage to, or operation of transmission licensee's equipment/cables rated at 66kV or above	(i) First incident in the last 180 days - **S$50,000** (ii) Second and subsequent incidents in the last 180 days - **S$100,000**
	Voltage dip due to failure of, damage to, or operation of Transmission Licensee's equipment/ cables rated at 22kV	(i) First incident in the last 90 days - **S$10,000** (ii) Second and subsequent incidents in the last 90 days - **S$20,000**

Dimension	Description	Financial Penalty
Restoration of supply	Time taken to restore electricity supply for each power failure due to failure of, damage to, or operation of Transmission Licensee's equipment or cables rated at 22kV and below	(i) Each and every incident where the restoration time exceeds 3 hours - up to **S$50,000**
	Time taken to restore electricity supply for each power failure due to failure of, damage to, or operation of Transmission Licensee's equipment or cables rated at 22kV and below	(i) More than 10% of the power failure incidents in each calendar month where the restoration time exceeds 2 hours but does not exceed 3 hours - up to **S$50,000**

Source: EMA, June 29, 2012

Electricity Transmission and Distribution Technical Performance Standards

Technical performance standards are currently in effect with respect to five areas of the Transmission Licensee's performance: availability of electricity supply, quality of electricity supply, provision of service, consumer responsiveness and metering services. These technical performance standards are intended to ensure that electricity consumers continue to receive quality services from the Transmission Licensee. The EMA also compares the reliability of SPPA's network with the network reliability of other comparable electricity services providers internationally.

The following sets forth the technical performance standards currently in effect with respect to the Electricity Authorised Business:

Service Dimension	Service Indicator	Service Standard	Performance Target (%)
Availability of supply	Minimum duration of notice of interruption of supply	7 calendar days	95
Quality of supply	Time taken to rectify voltage complaint or limit violation	2 calendar days	95
	Time taken to correct a voltage complaint which requires network reinforcement	6 months	99
Providing supply	Time taken to implement electrification scheme requiring new substations after takeover of substation (up to 22kV)	10 weeks	90
	Time taken to implement service connection requiring cable installation work after premises to be supplied is ready to receive cable	6 weeks	90
Customer Contact	Time taken to reply to written complaint	7 working days	95
Metering services	Time taken to attend to meter problem upon notification	8 calendar days	95

Source: PUB Regulation Department (now taken over by the EMA), December 29, 1995

Gas T&D Business

PowerGas, a wholly-owned subsidiary of SP, is the sole entity licensed to convey gas in Singapore, and was issued with a Gas Transporter Licence dated January 28, 2008 by the EMA. As a Gas Transporter licensee, PowerGas is tasked by the EMA to develop, maintain and operate a reliable and efficient gas transmission and distribution network, and facilities such as the ORF and offtake stations that delivers both natural gas and town gas to substantially all gas end users in Singapore.

As of March 31, 2018, PowerGas recorded total assets of S$1.0 billion and PowerGas' gas network served approximately 820,000 residential, industrial and commercial gas end users. PowerGas owns the gas transmission and distribution networks in Singapore which include offshore pipelines and two onshore receiving facilities for natural gas from Indonesia and Malaysia, and more than 3,300 km of underground pipelines. PowerGas continues to enhance its network infrastructure to support Singapore's future gas needs and economic growth.

PowerGas was issued with a Gas Transporter Licence dated January 28, 2008 by the EMA. SP PowerGrid has been granted a Gas Licence as a Gas Transport Agent under the Gas Act on June 20, 2008 to manage the gas transportation business for PowerGas or on its behalf, and the Manager is itself regulated by the EMA under the Gas Act.

As of March 31, 2018, PowerGas' gas transmission and distribution network within Singapore comprised:

- 10 km of offshore pipelines;
- more than 200 km of high pressure transmission pipelines;
- more than 3,000 km of distribution pipelines;
- two onshore receiving facilities for natural gas from Indonesia and Malaysia;
- 28 offtake stations; and
- one gasholder station storing up to 150,000 cubic meters of town gas for emergency use and peak load shaving.

The quality and reliability of PowerGas' gas transmission and distribution network has been fundamental to its success. PowerGas achieved SAIDI (System Average Interruption Duration Index) of 0.4817 minute per consumer per year and SAIFI (System Average Interruption Frequency Index) of 0.003464 interruption per consumer per year, as well as 0.03 leaks per km in FY18, which generally exceeds other underground gas transmission and distribution networks.

The Gas T&D Business is subject to extensive regulation. The revenue and price controls which limit the tariffs PowerGas may charge its customers are subject to regulatory approval by the EMA. Please refer to a detailed discussion in " — Tariff Regulatory Framework for the Gas T&D Business — Performance-Based Regulation/Price Controls set by the EMA."

Gas Transmission and Distribution Operations

In operating the Gas T&D Business, PowerGas' core areas of activities include network management, network planning and development, gas market operation and administration, and regulatory management. Through these core activities, PowerGas maintains a secure and reliable transmission and distribution network that enables transportation of gas to end users in an economical, efficient, safe and timely manner while meeting the EMA's performance standards.

PowerGas' gas transmission and distribution network serves approximately 820,000 residential, industrial and commercial gas end users as at March 31, 2018.

Reliability of Gas Transmission and Distribution Network

SP Group believes that the reliability of PowerGas' gas transmission and distribution network has been fundamental to its success. The adoption of industry best practice in asset management and preventive maintenance has enabled PowerGas to deliver gas to the end users with fewer interruptions. The quality of gas transmission network also allows delivery of natural gas to the power stations that requires uninterruptible high pressure natural gas supply.

All gas transmission and distribution pipelines are designed and constructed in accordance with industry codes. Prior to commissioning, all newly constructed gas transmission and distribution pipelines are pressure tested to ensure their integrity.

PowerGas' gas transmission pipelines are protected by the Impressed Current Cathodic Protection System and undergo pipeline integrity inspection. The equipment in the ORF and offtake stations are also designed with redundancies where required.

PowerGas conducts regular leak surveys on its gas distribution pipelines and implement a mains renewal program for ageing distribution pipelines.

SP Group believes that these measures have been effective in safeguarding the reliability and quality of PowerGas' gas transmission and distribution services. The average age of PowerGas' existing gas transmission and distribution pipelines is generally less than 25 years.

SP Group believes that PowerGas' network reliability performance generally exceeds that of its peers in other countries with comparable underground networks. SAIDI, SAIFI and leaks per km are currently the primary indices for network reliability.

PowerGas' SAIDI, SAIFI and leaks per km for FY16 to FY18 are set forth in the table below:

	For the financial year ended March 31,		
	2016	**2017**	**2018**
Measure			
SAIDI[(1)] (minutes)	0.1669	1.4734	0.4817
SAIFI[(2)] (interruptions)	0.002263	0.004032	0.003464
Leaks/km[(3)]	0.052	0.036	0.03

Notes:

(1) SAIDI represents the average unplanned outage duration experienced per consumer per annum.

(2) SAIFI represents the average number of unplanned interruptions per consumer per annum.

(3) Leaks/km represents.

Gas Transmission and Distribution Network Assets

PowerGas operates a network of more than 3,300 km pipelines that facilitates the transmission and distribution of piped gas. The entire network is mainly underground except where the pipes cross over canals or enter into buildings. The network operates at the following pressure regimes:

- High-pressure natural gas transmission at 28 / 40 barg
- Medium-pressure natural gas distribution at 3 / 5.5 barg
- Town gas transmission at 3 barg
- Low-pressure town gas distribution at 0.5 / 0.2 / 0.02 barg

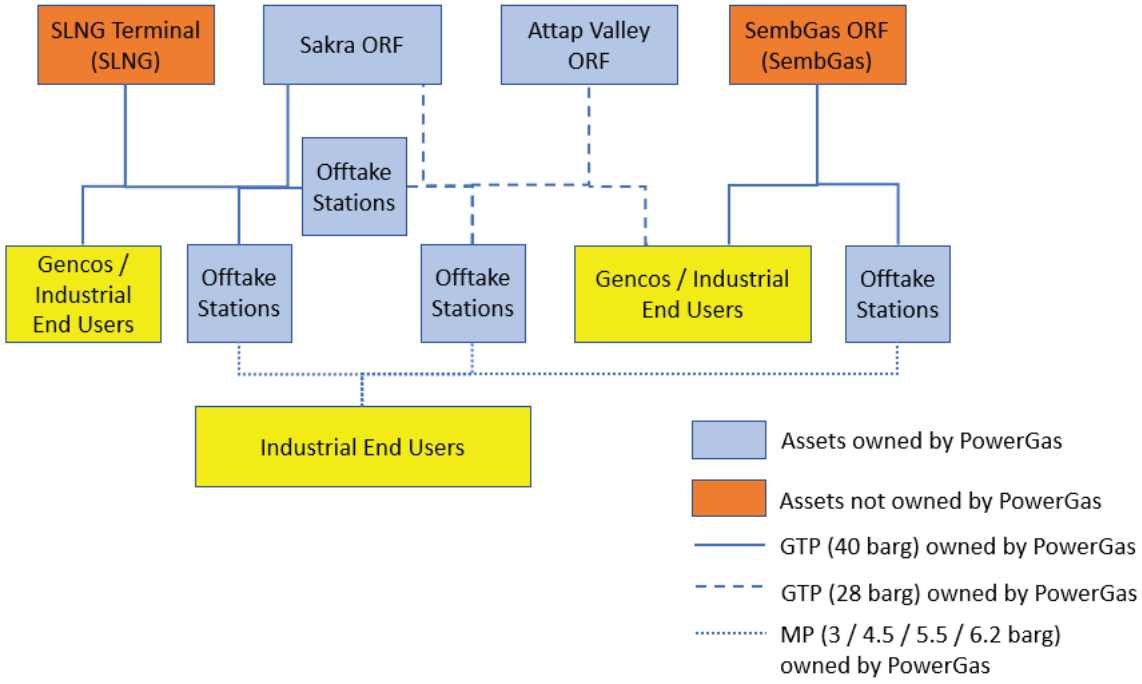
PowerGas' gas transmission pipeline is designed to carry gas at high pressure. While all the joints of the pipeline are welded, the pipeline is protected against corrosion with high density polyethylene external coating and cathodic protection system. The pipeline is generally embedded 1.6 meters in the ground. Above-ground warning markers are erected in the vicinity of the pipeline to indicate its existence and to inform third parties working in the area to contact PowerGas prior to any excavation near the high-pressure pipelines.

The primary components of PowerGas' transmission and distribution network assets include:

- High pressure offshore pipelines from the international deemed border to Singapore conveying natural gas from Indonesia and Malaysia;
- Onshore transmission and distribution pipelines;
- Onshore Receiving Facilities receiving natural gas from Indonesia and Malaysia; and
- Gasholder station.

Natural Gas Transmission and Distribution Network

The following diagram illustrates the basic structure of PowerGas' natural gas transmission and distribution network:



High Pressure Offshore Pipelines

PowerGas currently operates two submarine pipelines, a 9 km submarine pipeline from Singapore-Indonesia deemed border to Sakra ORF at Jurong Island transporting natural gas from South Sumatra to Singapore; and another 1 km submarine pipeline from Singapore-Malaysia deemed border to Attap Valley ORF at Attap Valley Road transporting natural gas from Malaysia to Singapore. Both the submarine pipelines are protected by rock armour. The offshore pipelines are terminated at the ORF and injected into the gas transmission networks.

Natural Gas Transmission and Distribution Pipelines

The primary network assets are the underground gas transmission and distribution pipelines. There are close to 200 km of natural gas transmission pipelines operating at high pressures of 40 barg and 28 barg within Jurong Island and Singapore's mainland.

The gas transmission pipelines are made of carbon steel with sizes ranging from 100mm to 700mm in diameters and they serve the various power stations and some industrial customers with co-generation / tri-generation plants. The high pressures are also stepped down at the offtake stations located strategically around the island to 3 barg or 5.5 barg and injected into the gas distribution networks.

The natural gas distribution pipelines are made of polyethylene with sizes ranging from 125mm to 315mm in diameters. The gas distribution networks serve the small and medium industrial and commercial customers.

ORF

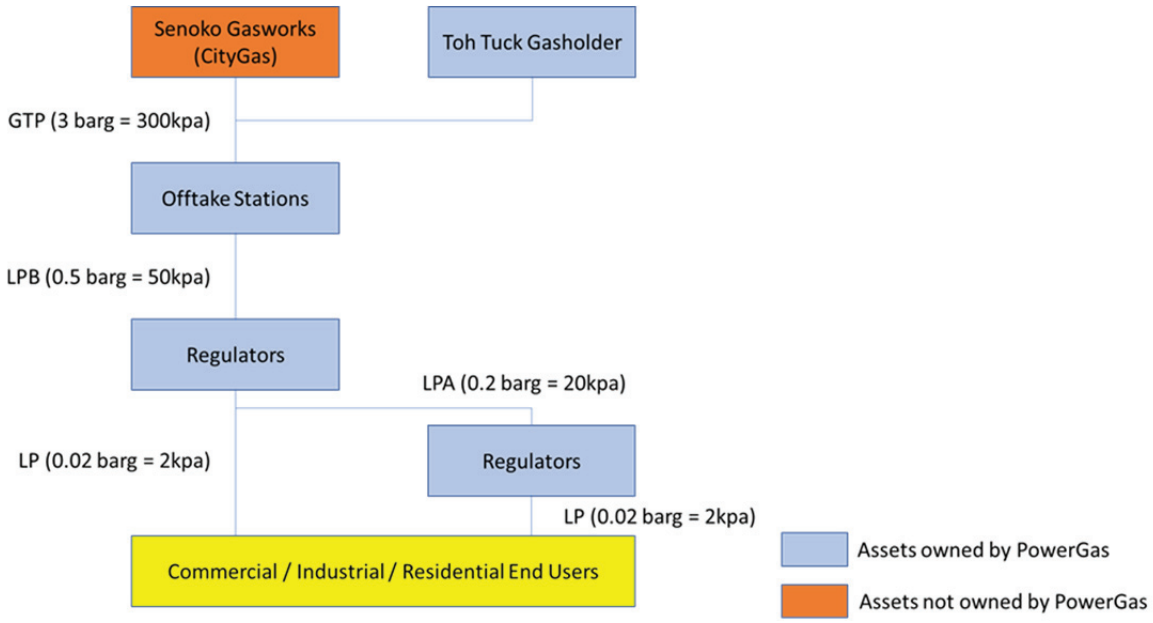
PowerGas owns and operates two ORFs that receive natural gas from South Sumatra (Indonesia) and Plentong (Malaysia). The ORFs have equipment such as gas filters that provides filtration of the incoming natural gas, gas chromatography and analyzers to measure the quality of gas, ultrasonic gas meters for billing purposes, water bath heaters to heat up the gas temperature, pressure regulators to step down and maintain a stable injection pressure before injecting into the gas transmission networks etc. Gas transported through the offshore pipelines will flow through the ORF before entering the onshore gas pipeline network.

Offtake Stations

The offtake stations are facilities that contain pressure regulators to step down the gas pressure between the gas transmission and distribution networks.

Town Gas Transmission and Distribution Network

The following diagram illustrates the basic structure of PowerGas' town gas transmission and distribution network:



Town Gas Transmission and Distribution Pipelines

There are approximately 80 km of town gas transmission pipelines operating at pressures of 3 barg within Singapore's mainland. The town gas transmission pipelines are mainly carbon steel pipes with sizes ranging from 400mm to 600mm in diameters. The 3 barg gas pressure is stepped down at the offtake stations located strategically around the island to 0.5 barg and injected into the town gas distribution networks.

The town gas distribution network comprised about 60% of ductile / iron pipelines and 40% of polyethylene pipelines with sizes ranging from 25mm to 600mm in diameters. There is a mains renewal/ replacement program to renew or replace the iron pipelines with polyethylene pipelines. The town gas distribution networks serve the small and medium industrial and commercial customers, as well as residential customers.

Toh Tuck Gasholder

The spherical Toh Tuck Gasholder Station provides town gas storage for emergency use. It is designed to store up to about 150,000 standard cubic meters of gas at a pressure of 8 barg.

Protection System

In the event of a serious network fault such as a major gas leak, there are remote controlled valves that can isolate the affected section of pipeline to contain the impact and effect of the fault. In the event of a supply disruption, a set of procedures called "Implementation of Curtailment Procedures", approved by EMA, will curtail the offtaking of gas to end users based on the principles laid out in the Gas Network Code until the balance of supply and demand has been regained and system stability resumed.

In addition, a number of preventive measures are in place to protect the key network installations from terrorist attack and intrusion. Physical protection measures such as fence intrusion detection systems, closed circuit TV systems, anti-crash vehicle barriers and access control systems have been enhanced at key installations, which are also under 24-hour surveillance.

PowerGas' gas transmission pipeline routes are patrolled regularly by SP Group's Earthworks Surveillance and Patrolling field enforcement officers. A CCTV system has been installed to allow remote monitoring on the majority of the gas transmission pipeline routes. SP Group believes that the underground gas transmission pipelines offer protection from acts of terrorism or sabotage due to their comparatively greater difficulty of access and reduced prominence.

SP Group has established a 24/7 security command center to monitor the gas facilities and has also procured terrorism insurance coverage for the key network assets. There can be no assurance that such measures will be successful in mitigating the effects of any terrorist acts in Singapore.

See " — Insurance" for a discussion of SP Group's insurance policies.

Operation and Control of Gas Transmission and Distribution Network

System Operation

As a gas system operator, PowerGas is responsible for maintaining the overall system security and monitoring the quality of gas introduced into the gas network. To ensure the efficient management of the gas transportation network, PowerGas uses the Supervisory Control and Data Acquisition ("**SCADA**") systems to operate its network system. These systems provide real-time monitoring and control of the gas network, ensuring the quality and safety of the transmission and distribution operations.

Supervisory Control and Data Acquisition

SCADA is an online computerised system that monitors and controls the gas network, to ensure a reliable and uninterrupted gas supply to customers. It regulates gas flow and pressure remotely.

The system also monitors and controls gas facilities such as offtake stations, line valve stations, distribution regulator stations and provides advance warning of any abnormal conditions. Faults can then be isolated and corrective action taken to maintain the integrity and security of the gas network.

Gas Transportation IT System Solution ("GTSS")

GTSS is an IT application system designed in accordance with the requirements of the Gas Network Code. This system is essential in supporting the operation of the gas market round the clock. It facilitates the operations and transactions carried out by market participants such as Gas Shipper Licensees and the Gas Transporter Licensees. Some of the system functions include market settlement, commodity variance, trading, nomination of gas injection and offtake for the network and meter reading management.

Gas and Electric Mapping System

GEMS is a geographic information system that maps the location of gas pipelines and facilities in Singapore. This information is used facilitate the operations and maintenance of the gas transmission and distribution networks. The information is also used for planning of new connections to customers. It is mandatory for contractors who are carrying out excavation or other earthworks to purchase services plans to ascertain locations of the gas pipes. This is to prevent accidental damage to the gas pipes.

Gas Leak Survey Program

Gas leak surveys are conducted to ensure the safety and integrity of PowerGas' gas distribution network. Every year, over 3,000 km of gas mains are surveyed to preemptively detect gas leaks. In the city, gas leak surveys are carried out more intensively on a monthly basis.

Gas leak surveys are conducted with the aid of highly sensitive gas detectors, which can pick up presence of combustible gas in very low concentrations. During the gas leak surveys, PowerGas also checks on the conditions of exposed gas pipes, pipe supports crossing over drains and construction activities in the vicinity of the pipelines.

PowerGas' Gas Licences

Overview

Under the Gas Act, a gas licence is required by any person who wishes to, among others, convey gas or to convey gas for and on behalf of a Gas Transporter. This section sets out a brief summary of the conditions of the gas licences held by subsidiaries within SP Group to carry out such activities.

Gas Transporter Licence

The word "convey" is defined in the Gas Act as the transmission or distribution of gas by means of gas pipes. The Gas Act makes it an offence to convey gas unless authorized to do so by a gas licence or pursuant to an exemption granted by the EMA.

PowerGas, through the Gas Transporter Licence, is currently the sole entity licensed to convey gas in Singapore. The Gas Transporter Licence was issued by the EMA on January 28, 2008.

The Gas Act provides that it is PowerGas' duty as a Gas Transporter Licensee to (a) develop and maintain a safe, efficient, reliable and economical gas pipeline or gas pipeline network for the conveyance of gas; (b) subject to paragraph (a), comply, so far as it is economical to do so, with any reasonable request to connect to that gas pipeline or gas pipeline network, and convey gas by means of that gas pipeline or gas pipeline network to, any premises; and (c) carry on its licensed gas business at all times in such a manner so as not to prevent, restrict or otherwise hinder the development of competition in any gas market in Singapore. Additionally, it is PowerGas' duty as a Gas Licensee to avoid undue preference or undue discrimination in the terms on which it undertakes the conveyance of gas by any gas pipeline or gas pipeline network owned by, or under the management or control of, PowerGas, or in the connection of premises to such a gas pipeline or gas pipeline network.

The EMA may not terminate PowerGas' Gas Transporter Licence except by giving PowerGas 25 years' notice, or otherwise revoking the Gas Transporter Licence in accordance with the Gas Act (including where the EMA is satisfied that PowerGas has gone into compulsory liquidation or voluntary liquidation other than for the purpose of amalgamation or reconstruction, or the public interest or security of Singapore so requires). See "Industry and Regulation — Gas Industry in Singapore — Powers of the EMA to Control Gas Licensees". Any request by PowerGas to terminate the Gas Transporter Licence is subject to the approval of the EMA and PowerGas continues to be bound by the terms of the Gas Transporter Licence until such time as the EMA notifies PowerGas in writing of such approval. Under the Gas Act, the Gas Transporter Licence is not transferable to any other person without the approval in writing from the EMA and any purported transfer of the Gas Transporter Licence shall be void.

Conditions of the Gas Transporter Licence

The main conditions contained in the Gas Transporter Licence include those set out below.

Authorized Activities

PowerGas is licensed to conduct the Gas T&D Business, and may, upon EMA's approval in writing and subject to such conditions as EMA may impose at the time of approval or any time thereafter, engage in allowed activities that (a) PowerGas is already competent in; and (b) provide synergies with the activities comprised in the Gas T&D Business. Save as aforesaid, PowerGas is not permitted to engage directly or indirectly in any other business activities or voluntarily commit to any liability in relation to such other business activities. PowerGas must also procure that each of its subsidiaries and related enterprises do not engage, or seek to obtain from the EMA a gas licence permitting it to engage, directly or indirectly in any other business activities or voluntarily commit to any liability in relation to such business activities.

Dealings with Subsidiaries/ Related Enterprises

In any event, PowerGas is not permitted to provide or receive any cross-subsidies between its regulated Gas T&D Business and any other business or allowed activity of PowerGas or of PowerGas' subsidiaries or related enterprises, except as the EMA may otherwise approve in writing. PowerGas is not permitted to unduly discriminate in favor of its subsidiaries or related enterprises, and, except with the written consent of the EMA, must ensure that all its dealings with its subsidiaries and related enterprises are on an arm's length basis.

Separate Accounts for Gas T&D Business

PowerGas has to prepare separate accounts for the Gas T&D Business and provide the EMA with PowerGas' accounting statements, and procure, in respect of its accounting statements, a report by PowerGas' auditor addressed to the EMA, stating its opinion as to whether PowerGas' accounting statements have been properly prepared in accordance with the Gas Transporter Licence and whether they give a true and fair view of revenues, costs, assets, liabilities, reserves and provisions of, or reasonably attributable to, the Gas T&D Business. PowerGas is required to deliver to the EMA a copy of the accounting statements together with the auditors' report no later than five months after the end of the relevant financial period.

Confidential Information

All information received by PowerGas which relates to the Gas T&D Business (other than information which is already publicly available) is confidential and PowerGas has to take reasonable measures to protect such information. PowerGas cannot use such information for (i) any commercial advantage in the provision of any service other than a service comprised in the Gas T&D Business or (ii) any purpose other than that for which such information was provided or for a purpose permitted by the Gas Transporter Licence, any applicable code of practice or the Gas Network Code. If requested by the EMA, PowerGas is required to procure from its auditors a certificate to confirm that PowerGas is in compliance with its confidentiality obligations under the Gas Transporter Licence.

Investigation of Offences

If PowerGas becomes aware that it may not have complied with any of the conditions of the Gas Transporter Licence, or suspect that any other Gas Licensee has breached its gas licence or any applicable legislation, PowerGas is required to report the same to the EMA and provide the EMA with such assistance and co-operation in connection with any prosecution proceedings arising therewith.

Licence Fee

PowerGas pays the EMA an annual licence fee in respect of the Gas Transporter Licence. The amount of the fee is determined by the EMA (in accordance with the terms and conditions as set out in the Gas Transporter Licence) on or before April 1 of each year, and is to be paid by PowerGas by April 30 of each year. If PowerGas fails to pay the licence fee in full when due, the EMA may require PowerGas to pay late payment interest on the unpaid amount.

Governance

None of PowerGas' directors may be employed by or hold any office or engagement with any person authorized by a gas licence or exempted from the obligation to hold a gas licence, to engage in the shipping or retailing of gas, production of town gas or the import of natural gas or liquefied natural gas. None of PowerGas' directors may be employed by or hold any office or engagement with any person authorized by an electricity licence or exempted from the obligation to hold an electricity licence, to engage in the generation, retail, import or export of electricity or trade in any wholesale electricity market. The EMA may, on such terms as it may specify in writing and notify to PowerGas, waive or vary any of such requirements.

PowerGas is required to notify the EMA of changes in its shareholding structure, as required pursuant to Section 63B of the Gas Act. See "Industry and Regulation — Gas Industry in Singapore — Powers of the EMA to Control Gas Licensees".

PowerGas is also not permitted to, directly or indirectly through its related enterprises acquire or hold any shares in any person authorized by an electricity licence or gas licence, or exempted from the obligation to hold a gas licence or an electricity licence, to engage in any such activities. The EMA may, on such terms as it may specify in writing and notify to PowerGas, waive or vary any of such requirements.

Prices for PowerGas' Gas Transmission Services

PowerGas' charges for the provision of transmission services are set annually based on a cost recovery methodology, which is developed by PowerGas and approved by the EMA, and is subject to a regulated price cap. The EMA's approval must also be obtained for any revisions to the charging structures and charges. PowerGas is required to publish the approved charges with such detail as shall be necessary to provide an indication of the cost likely to arise in respect of work done and materials used in connecting any premises to PowerGas's gas mains network.

Developmental Work / Development of Codes of Practice

The EMA may from time to time require PowerGas to perform or participate in research and development activities, and to co-operate with other gas licenses to perform research and development activities in relation to the conduct of the Gas T&D Business. PowerGas has to participate in the development of any code of practice and standard of performance if such code of practice or standard of performance will directly or indirectly affect the Gas T&D Business.

Special Conditions of Gas Transporter Licence

The Gas Transporter Licence also requires PowerGas to comply with certain special conditions applicable to the conveyance of gas, the conveyance of natural gas, the conveyance of town gas and conversion of PowerGas' town gas system and the operating and management of PowerGas' onshore receiving facilities.

Gas Transport Agent Licence

SP PowerGrid, through the Gas Transport Agent Licence, is licensed to convey gas for and on behalf of PowerGas. The Gas Transport Agent Licence was issued by the EMA on June 20, 2008.

The Gas Transport Agent Licence shall terminate upon the expiry or earlier termination of the Gas Transporter's licence granted to PowerGas, unless revoked by the EMA in accordance with the Gas Act (including where the EMA is satisfied that SP PowerGrid has gone into compulsory liquidation or voluntary liquidation other than for the purpose of amalgamation or reconstruction, or the public interest or security of Singapore so requires). See "Industry and Regulation — Gas Industry in Singapore — The Gas Act — Powers of the EMA to Control Gas Licensees"**.** Any request by SP PowerGrid to terminate the Gas Transport Agent Licence is subject to the approval of the EMA and SP PowerGrid shall continue to be bound by the terms of the Gas Transport Agent Licence until such time as the EMA notifies SP PowerGrid in writing of such approval. Under the Gas Act, the Gas Transport Agent Licence is not transferable without the approval in writing of the EMA and any purported transfer of the Gas Transport Agent Licence shall be void.

Conditions of Gas Transport Agent Licence

The main conditions contained in the Gas Transport Agent Licence include those set out below.

Authorized Activities

SP PowerGrid is licensed to conduct the Gas Transport Agent Business and may, upon the EMA's approval in writing and subject to such conditions as the EMA may impose at the time of approval of any time thereafter, engage in allowed activities that (a) use an existing competency of SP PowerGrid; and (b) provide synergies with the activities comprised in the Gas Transport Agent Business. Save as aforesaid, SP PowerGrid is not permitted to engage directly or indirectly in any other business activity or voluntarily commit to any liability in relation to such other business activity. SP PowerGrid must also procure that each of its subsidiaries and related enterprises do not engage, or seek to obtain from the EMA a gas licence permitting it to engage, directly or indirectly in any other business activities or voluntarily commit to any liability in relation to such other business activities.

In any event, SP PowerGrid is not permitted to provide or receive any cross-subsidies between its regulated Gas Transport Agent Business and any other business or allowed activity of SP PowerGrid or of SP PowerGrid's subsidiary or related enterprises except as the EMA may otherwise approve in writing. SP PowerGrid is not permitted to unduly discriminate in favor of its subsidiaries or related enterprises and, except with the written consent of the EMA, must ensure that all its dealings with its subsidiaries and related enterprises are on an arm's length basis.

Separate Accounts for Gas Transport Agent Business

SP PowerGrid has to prepare separate accounts for the Gas Transport Agent Business and provide the EMA with its accounting statements, and procure, in respect of its accounting statements, a report by SP PowerGrid's auditors addressed to the EMA, stating its opinion as to whether SP PowerGrid's accounting statements have been properly prepared in accordance with the Gas Transport Agent Licence and whether they give a true and fair view of the revenues, costs, assets, liabilities, reserves and provisions of, or reasonably attributable to, the Gas Transport Agent Business. SP PowerGrid is required to deliver to EMA a copy of the accounting statements together with the auditors' report no later than five months after the end of the relevant financial period.

Confidential Information

All information received by SP PowerGrid which relates to the Gas Transport Agent Business (other than information which is already publicly available) is confidential and SP PowerGrid has to take reasonable measures to protect such information. SP PowerGrid cannot use such information for (i) any commercial advantage in the provision of any service other than a service comprised in the Gas Transport Agent Business or any applicable code of practice; or (ii) any purpose other than that for which such information was provided or for a purpose permitted by the Gas Transport Agent Licence. If requested by the EMA, SP PowerGrid is required to procure from its auditors a certificate to confirm that SP PowerGrid is in compliance with its confidentiality obligations under the Gas Transport Agent Licence.

Investigation of Offences

If SP PowerGrid becomes aware that it may not have complied with any of the conditions of the Gas Transport Agent Licence, or suspects that any other Gas Licensee has breached its gas licence or any applicable legislation, or any other person has breached the relevant legislation, SP PowerGrid is required to report the same to the EMA and provide the EMA with such assistance and co-operation in connection with any prosecution proceedings arising therewith.

Licence Fee

SP PowerGrid pays the EMA an annual fee in respect of the Gas Transport Agent Licence. The amount of this fee is determined by the EMA (in accordance with the terms and conditions as set out in the Gas Transport Agent Licence) on or before April 1 of each year, and is to be paid by April 30 of each year. If SP PowerGrid fails to pay the licence fee in full when due, the EMA may require SP PowerGrid to pay late payment interest on the unpaid amount.

Governance

None of SP PowerGrid's directors may be employed by or hold any office or engagement with any person authorized by a gas licence or exempted from the obligation to hold a gas licence, to engage in the shipping or retailing of gas, production of town gas or the import of natural gas or liquefied natural gas. None of SP PowerGrid's directors may be employed by or hold any office or engagement with any person authorized by an electricity licence or exempted from the obligation to hold an electricity licence, to engage in the generation, retail, import or export of electricity or trade in any wholesale electricity market. The EMA may, on such terms as it may specify in writing and notify to SP PowerGrid, waive or vary any of such requirements.

SP PowerGrid is also not permitted to directly or indirectly through its related enterprises acquire or hold any shares in any person authorized by an electricity licence or a gas licence or exempted from the obligation to hold an electricity licence or a gas licence, to engage in any such activities. The EMA may, on such terms as it may specify in writing and notify to SP PowerGrid, waive or vary any of such requirements.

SP PowerGrid is required to notify EMA of any acquisition by a person of an equity interest in SP PowerGrid of 5% of more within five days of SP PowerGrid becoming aware of the acquisition.

Performance Monitoring

SP PowerGrid is required to submit to EMA, at EMA's request and in accordance with any process or principles EMA may issue, a proposal specifying the performance measures against which SP PowerGrid's performance in conducting the Gas Transport Agent Business and of PowerGas in conducting the Gas T&D Business may be measured. SP PowerGrid is also required to collect and report statistics of other performance measures as may be requested by EMA in writing and submit to EMA, within 90 days after the start of its financial year or within 30 days of such other date as stipulated by EMA, a report indicating the performance of SP PowerGrid in respect of its Gas Transport Agent Business and of PowerGas in conducting the Gas T&D Business during the previous financial year against the agreed performance measures.

Developmental Work / Development of Codes of Practice

The EMA may from time to time require SP PowerGrid to perform or participate in research and development activities and co-operate with other Gas Licensees to perform research and development activities in relation to the conduct of the Gas Transport Agent Business.

SP PowerGrid may participate in the development of any code of practice or standard of performance if it will directly or indirectly affect the Gas Transport Agent Business of SP PowerGrid or the Gas T&D Business of PowerGas.

SP PowerGrid may propose modifications to a code of practice or standard of performance that is in force at the relevant time by notifying the EMA in writing of the proposed modification. The EMA may review the proposed modification and determine whether the proposed modification should be made.

Dealing(s) with PowerGas

SP PowerGrid is required to ensure that the PowerGas Management Services Agreement and any modifications thereto do not affect the ability of SP PowerGrid to discharge its responsibilities under the Gas Transport Agent Licence. SP PowerGrid has to give the EMA no less than 30 days' prior written notice of any modification to the terms and conditions of the PowerGas Management Services Agreement and shall not terminate such agreement without EMA's prior written consent. The EMA may, on such terms as it may specify in writing and notify to SP PowerGrid, waive or vary any of such requirements.

Competition

The Gas T&D Business is subject to extensive regulation by the EMA. PowerGas is dependent on the retention of its Gas Transporter Licence for the conduct of its business. PowerGas currently holds the sole Gas Transporter Licence in Singapore granted by the EMA, and is therefore effectively the only choice for gas transportation and distribution services for gas consumers in Singapore.

No assurance can be given that the EMA will not fundamentally alter PowerGas' business environment or affect its business in the future.

For example, the EMA has the power to:

- authorize a competing Gas Transporter Licensee to operate other gas transmission and distribution facilities in Singapore; and

- make changes to the regulatory framework for the energy industry or the code of practices for Gas Licensees from time to time.

Should any of these actions be implemented, SP Group's revenues could be reduced and its business and results of operations could be adversely affected. Such an action could also adversely affect PowerGas' network utilization rate and result in SP Group possessing overbuilt or underutilized network assets and capacity.

Customers, Billing and Collection

The customers served by PowerGas' gas transmission and distribution network consist of Gas Shipper Licensees, Gas Retailer Licensees and Gas Importer Licensees.

PowerGas' natural gas transmission and distribution networks serve the Gas Shipper Licensees and Gas Retailer Licensees, respectively. However, they have a diverse mix of generation companies, industrial and commercial end users.

PowerGas' town gas network serves one Gas Retailer Licensee who has a diverse mix of industrial, commercial and residential end users.

Diversity in the end user base helps to shield PowerGas from severe fluctuations in gas demand resulting from downturns in specific industries.

The customers served by PowerGas' gas transmission and distribution network are billed on a monthly basis except for the Gas Retailer Licensee for town gas who is billed on a weekly basis. The billing and collection arrangement is governed by the terms and conditions as set out in the Gas Network Code and respective contracts.

PowerGas minimizes its credit exposure from its customers by collecting a security deposit. For each natural gas customer, PowerGas requires a security deposit of three months of tariff revenue in the form of a banker's guarantee or cash deposits. In the event of its customers defaulting payment, PowerGas can realize the customer's security or make a call on the banker's guarantee. If the need arises, the defaulting customer can have its status terminated (i.e. cease to be a Gas Shipper Licensee) upon endorsement from the EMA. These procedures mitigate PowerGas' credit risk and are governed by the Gas Network Code. For the Gas Retailer Licensee of town gas, PowerGas requires a banker's guarantee equivalent to S$1 million and PowerGas lowers its exposure to credit risk by having a short billing cycle of seven days.

Tariff Regulatory Framework for the Gas T&D Business

Performance-Based Regulation and Revenue / Price Controls set by the EMA

The Gas T&D Business is subject to extensive legislation. PowerGas' network tariffs for the transmission and distribution of gas are regulated and approved by the EMA pursuant to regulatory revenue and price controls. Based on an average taken from FY16 to FY18, 87% of PowerGas' annual revenue and other income were derived from regulated tariff revenues. Revenue for the Gas T&D Business, which is regulated by the EMA using a building block calculation which has been adopted since 2008, is computed as the value of the regulated asset base for the Gas T&D Business multiplied by the regulatory WACC for the Gas T&D Business, to which operating expenses, depreciation and taxes are added. The WACC for the Gas T&D Business is 6.00% (nominal after tax) under the current five-year regulatory period which commenced on April 1, 2015 and the regulated asset base for the Gas T&D Business was S$839 million. Such regulated asset base used for tariff computation excludes customer contributions.

The revenue and price controls are applicable to the respective transmission and distribution networks. The gas network is divided into the following four segments for the purpose of revenue and price controls.

Revenue control

- Transmission Network 1 which conveys natural gas from West Natuna, Indonesia; and
- Transmission Network 2 which conveys natural gas from South Sumatra, Indonesia, Malaysia and LNG Terminal.

Price control

- Natural Gas ("NG") Distribution Network which conveys natural gas to small commercial and industrial users; and
- Town Gas Network which conveys gas to mainly the domestic, commercial and industrial customers.

The regulatory framework is performance-based, which allows PowerGas to retain during each regulatory period the benefits of capital and operating efficiency gains achieved in such regulatory period. These benefits are in the subsequent regulatory period shared equally between consumers and PowerGas.

The WACC for the Gas T&D Business applicable in future five-year regulatory periods may be higher or lower. The opening regulated asset base for the Gas T&D Business was determined by subtracting the deferred revenue balance from PowerGas' net book value of fixed assets for the Gas T&D Business, where the deferred revenue balance represents PowerGas' cumulative customer contributions. PowerGas is incentivized to reduce its cost of capital by increasing leverage and achieving an optimal capital structure.

PowerGas' five-year building block revenue requirement forecast for each network segment is translated into:-

- five-year revenue control formula for the Transmission Networks 1 & 2; and
- five-year price control formula based on five-year forecasts of total volume of gas distributed for the natural gas distribution network as well as the town gas network.

In addition, the regulatory framework allows for adjustment to the annual revenue/price caps for the individual networks to take into account those project costs which have not been included in the regulatory submission. Under this mechanism, the adjustment is effected through the OS-factor or E-factor in the respective revenue/price control formulas for the network segments.

The transportation charges are set annually and are levied on the Gas Shipper Licensees and the Town Gas Retailer. The end-user tariffs are set by Gas Shipper Licensees and the Town Gas Retailer to their end users through commercial contracts. PowerGas has the ability to vary its tariff structure and set the annual charges, subject to EMA approval. Based on the licence conditions, PowerGas is required to use its best endeavors to attain transportation revenue/price for the respective market segment not greater than the price/revenue controls established by the EMA.

Under the present regulatory framework, PowerGas is exposed to certain revenue/volume risk for the Gas T&D Business. If the amount of gas that PowerGas transports at the transmission/distribution level is materially different to the level assumed in the building block calculation, PowerGas' revenues will be affected. PowerGas absorbs any applicable revenue/volume variance each year within a +/-2.0% deviation from the applicable regulated revenue/volume forecast approved by EMA. If the deviation is greater than the 2.0% band, the present regulatory framework allows PowerGas to adjust the applicable revenue/price controls within the current regulatory period.

The implementation of the +/-2.0% revenue/volume band effectively mitigates PowerGas' revenue risk.

However, for the natural gas distribution network and town gas network which are under the price control formula, PowerGas is fully exposed to the risk that the volume of gas transported for its natural gas distribution network and town gas network with respect to consumer segments will be different from that assumed in the annual regulatory price cap. The EMA does not apply any limit to the revenue exposure arising from changes in demand mix between PowerGas' customer segments.

Revenue

Revenue consists of gas transportation charges. Revenue is recognized when gas is delivered to consumers. Allowed revenue is calculated by multiplying the units of gas transmitted or distributed for each consumer segment over a given period by the tariffs for the respective consumer segment in accordance with the price regulation framework approved by EMA. Revenue allowed by the EMA (in accordance with the price regulation framework) is adjusted based on the services rendered and deferred over the regulatory period. At the end of each regulatory period, any outstanding balance is taken to profit or loss as revenue.

The EMA approves the tariffs to be charged to consumers in respect of any period of time. These tariffs are determined by PowerGas' projected capital and operating expenditures.

PowerGas has flexibility (subject to regulatory approval) to set the tariffs with respect to the various consumer segments, and to vary the tariff structure between such consumer segments, as long as the average network tariff is consistent with the revenue/price controls established by the EMA.

Gas Transmission and Distribution Network Tariffs

The EMA has approved different schedules of gas transportation tariffs to reflect the corresponding cost of providing gas transmission and distribution services for the four gas networks. Gas transportation tariffs generate a substantial portion of PowerGas' total revenues, and include a number of variable components which are usage-sensitive as well as fixed components which are not usage-sensitive. Information on transportation tariffs is made available effective April 1, 2018 until March 31, 2019.

(a) Gas Shipper Licensees with end users off-taking gas at high pressure

Transmission tariffs are applicable for Gas Shipper Licensees with end users off-taking gas at high pressure. Transmission tariffs consist of capacity and usage charges. Gas Shipper Licensees enter into capacity bookings with PowerGas to transport gas from designated injection points to off-take points. Gas Shipper Licensees pay entry and exit charges based on their respective booked capacity. In addition, usage charge is levied on the volume of gas transported. These transmission charges do not include specific cost items such as cost of metering stations. Specific costs are determined on a case-by-case basis for inclusion into the final transmission charges.

Table 1: Transmission Charges

	Entry Capacity Charge per annum (S$/MMBtu/hr)	**Exit Capacity Charge per annum (S$/MMBtu/hr/km)**	**Transmission usage charge (S$/MMBtu)**
Transmission Network 1 (Locational)	787.60	51.17	0.0076
Transmission Network 2 (Locational)	1224.19 (Attap Valley injection point)	35.07	0.0107
	890.36 (Sakra Injection point)		
New Pipeline - utilized	304.88	304.88 *	0.0037
New Pipeline - excess	266.12	266.12 *	0.0039

*in $/MMBtu/hr per annum

Note: The above charges do not include GST.

For Gas Shipper Licensees with small transmission end users (ie requiring gas at high pressure, but with load of less than or equal to 5 bbtud), the following transportation charges apply:

Table 2: Transmission Charges for shippers with small transmission end users

	Entry Capacity Charge per annum (S$/MMBtu/hr)	**Exit Capacity Charge per annum (S$/MMBtu/hr)**	**Transmission usage charge (S$/MMBtu)**
Transmission Network 1	1,053.73	4,238.43	0.0137
Transmission Network 2 (Sakra)	1,156.48	4,135.68	0.0137
Transmission Network 2 (Attap Valley)	1,490.31	3,801.85	0.0137
Transmission Network 2 (LNG)	1,192.47	4,709.46	0.0174

Note: The above charges do not include GST

(b) Gas Shipper Licensees with natural gas distribution end users

(i) The indicative average natural gas distribution tariff for transportation of gas to end users in the Jurong, Jurong Island and Tuas area with effect from April 1, 2018 is S$1.203/MMbtu. This is made up of the following components:-

- transmission charges (as detailed in Table 1 below). On average, the transmission charge is S$0.381/MMBtu;
- uniform distribution component of S$0.822/MMBtu chargeable on the volume of gas transported through the distribution network (as detailed in Table 2 below).

(ii) The indicative average NG distribution tariff for transportation of gas to end users outside the Jurong Island and Tuas area with effect from April 1, 2018 is S$2.665/MMBtu. This is made up of the following components:-

- transmission charges (as detailed in Table 1 below). On average, the transmission charge is S$0.381/MMbtu;
- uniform distribution component of S$2.285/MMBtu chargeable on the volume of gas transported through the distribution network (as detailed in Table 2 below).

Table 1: Transmission Charges for shippers with natural gas distribution end users

	Entry Capacity Charge (S$/MMBtu/hr) per annum	**Exit Capacity Charge (S$/MMBtu/hr) per annum**	**Transmission usage charge (S$/MMBtu)**
Transmission Network 1	1,053.73	1,437.10	0.0131
Transmission Network 2 (Sakra)	1,156.48	1,334.35	0.0131
Transmission Network 2 (Attap Valley)	1,490.31	1,000.52	0.0131
Transmission Network 2 (LNG)	1,192.47	1,908.14	0.0169

Note: The above charges do not include GST.

Table 2: Distribution Charges for Shippers with natural gas distribution end users

	Distribution Charge (S$/MMbtu)
Natural Gas distribution in JIT	0.822
Natural Gas distribution outside JIT	2.285

Note: The above charges do not include GST.

Shippers will have to pay Overrun Charges in the event the off-take gas above their booking capacity. These Overrun Charges are necessary to encourage the efficient use of the gas network. There are two types of Overrun Charges:

- Authorized Capacity Overrun Charge: If a Shipper applies for additional capacity above booked capacity (i.e. capacity overrun), the Authorized Capacity Overrun Charge, equivalent to 1.25 times the Transmission Capacity Charge rate, shall be applied on the additional capacity.

- Unauthorized Capacity Overrun Charge: If a Shipper does not apply for Authorized Capacity Overrun for utilization of additional capacity above the booking capacity, it will pay two times the Transmission Capacity Charge rate for the additional capacity utilized.

Performance Standards

These performance standards are currently in effect with respect to six areas of PowerGas' performance: availability of supply, reliability of supply, gas emergencies, provision of supply, metering services and customer contact. These performance standards are intended to ensure that gas end users continue to receive quality services from the PowerGas. The EMA also compares the reliability of the PowerGas' network with the network reliability of other comparable gas services providers internationally.

The following sets forth the performance standards currently in effect with respect to the Gas T&D Business:

Service Dimension	Service Indicator	Service Standard	Performance Target (%)
Availability of supply	Time taken to restore gas supply after an unplanned interruption in the gas distribution network.	24 hours	95
	Minimum duration of notice of interruption of gas supply.	2 working days	95
Reliability of supply	Number of gas supply disruption incident* caused by the failure of, damage to, or operation of the ORFs, and the gas pipeline network rated at 18 barg and above, arising from the fault of the Gas Transporter.	0	100
Gas emergencies	Time taken to respond to all reported gas leakages.	1 hour	100
Providing supply	Time taken to process an application for connection to the gas distribution network and to reply to the applicant.	2 weeks	90

Service Dimension	Service Indicator	Service Standard	Performance Target (%)
	Time taken to carry out gas service connection from the date when customer's premises are ready to receive connection and where the premise is within gas distribution network.	6 weeks	90
Metering services	Time taken to respond (make appointment, visit or reply) to a metering problem or dispute upon notification.	5 working days	95
Customer contact	Time taken to reply to a written enquiry or complaint.	7 working days	95

* Only incidents where the licensee is determined by the EMA to be at fault would be counted.

Source: Energy Market Authority

PowerGas is subject to a network performance scheme administered by the EMA, pursuant to which financial penalties are imposed on the gas transporterfor not meeting the set performance targets as summarized in the table below. No material financial penalties have been paid by PowerGas over the course of the last three financial years.

Dimension	Service Indicator	Financial Penalty
Reliability of supply	Number of gas supply disruption incident caused by the failure of, damage to, or operation of the ORFs, and the gas pipeline network rated at 18 barg and above, arising from the fault of the Gas Transporter.	(i) First incident in the last 365 days - up to S$1 million (ii) Second incident in the last 365 days - up to S$1.5 million (iii) Third and subsequent incidents in the last 365 days up to S$2 million

Other Sources of Revenue (Offshore Gas Transportation)

Pursuant to PowerGas' Gas Transporter Licence, PowerGas has entered into offshore agreements with the natural gas importers for the use of PowerGas' high pressure offshore pipelines.

In 2001, PowerGas entered into a Singapore Gas Transportation Agreement ("SGTA") with Gas Supply Pte Ltd and Perusahaan Minyak Dan Gas Bumi Negara ("Pertamina") in relation to the use of South Sumatra offshore gas pipeline. The contract commenced in 2003 and will last for a period of 20 years.

In addition, in 2007, PowerGas entered into an Offshore Transportation Agreement ("Keppel OTA") with Keppel Gas Pte Ltd in relation to the use of Attap Valley offshore pipeline. The Keppel OTA is for a period of 15 years.

These offshore pipelines are subject to the Gas Act and subsidiary legislation, including the regulations made under the Gas Act, and are governed by transportation agreements between PowerGas and the respective contracting parties. However, they are not subject to the regulatory framework described under " — Tariff Regulation Framework for the Gas T&D Business — Performance-Based Regulation/Price Controls set by the EMA".

The Manager and the Management Services Agreements

The Manager, a wholly-owned subsidiary of SP, exclusively manages SP Group's Electricity T&D Business (on behalf of the Electricity T&D Group) and Gas T&D Business (on behalf of PowerGas).

Through the Management Services Agreements, the SP Group (through the Manager) exclusively manages and controls the electricity and gas transmission and distribution networks in Singapore.

INVESTMENTS IN AUSTRALIA

Certain information under this section with respect to SP Group's investee companies has been extracted from publicly available documents and information, including annual reports, information available on corporate websites and documents filed by such companies with their respective regulators and, if applicable, the relevant stock exchanges on which their securities are listed. Potential investors in the Notes may obtain information regarding these companies from such public sources. None of those documents or publicly available information is incorporated by reference in this Offering Circular. Each of the Issuer and SP makes no representation, express or implied, and does not accept any responsibility with respect to the accuracy or completeness of any information made publicly available by such investee companies, whether or not included in this Offering Circular.

SP Group has made investments in Australia since 2000. As at the date of this Offering Circular, SP Group holds a 40% interest in SGSPAA and a 31.1% interest in AusNet Services.

SGSPAA

Overview of SGSPAA Group

SGSPAA is 60% owned by State Grid International Development Australia Investment Company Limited ("SGIDAIC") and 40% owned by Singapore Power International Pte Ltd ("SPI"), a wholly-owned subsidiary of SP. SGIDAIC is 100% owned by State Grid International Development Limited ("SGID"). SGID is a wholly-owned subsidiary of State Grid Corporation of China ("SGCC") and is the platform for undertaking the overseas investment and operations of SGCC.

For the year ended December 31, 2017, the total consolidated revenue of SGSPAA and its subsidiaries (together, the "SGSPAA Group") was A$1,758.9 million, its profit was A$241.6 million and its total assets amounted to A$10,883.9 million.

The SGSPAA Group operates two businesses – an assets business and a services business.

SGSPAA Group's assets business trades as "Jemena". Jemena owns or has an interest in a portfolio of network businesses in Australia's energy sector.

Jemena is complemented by a services business that provides services to companies within Jemena and to third parties. The services business focuses on delivering engineering, design and construction, as well as field based maintenance and operational services across gas, electricity, telecommunications and water assets. The services business trades as "Zinfra" and whilst it is 100% owned by SGSPAA Group, it is managed and operated separately from Jemena.

The SGSPAA Group's ownership interests as of June 30, 2018 are summarized in the table below.

Business	Interest	Location	Characteristic
Jemena			
(a) Distribution Assets			
Jemena Gas Distribution Network ("JGN")	100%	New South Wales	Regulated
Jemena Electricity Distribution Network ("JEN")	100%	Victoria	Regulated
ActewAGL Distribution Partnership ("ActewAGL")	50%	Australian Capital Territory	Regulated
United Energy Distribution Network ("UED")	34%	Victoria	Regulated
(b) Transmission Assets			
Eastern Gas Pipeline ("EGP") .	100%	New South Wales/Victoria	Contracted
Queensland Gas Pipeline ("QGP")	100%	Queensland	Contracted
Darling Downs Gas Pipeline ("DDP")	100%	Queensland	Contracted
VicHub Interconnect Facility ("VicHub")	100%	Victoria	Contracted
Colongra Gas Transmission and Storage Facility ("Colongra")	100%	New South Wales	Contracted
Northern Gas Pipeline ("NGP")[1]	100%	Northern Territory/ Queensland	Contracted
Atlas Gas Processing Plant and Pipeline ("AGPP")[2]	100%	Queensland	Contracted
(c) Other Assets			
Aquanet Recycled Water Network Sydney ("AquaNet")	100%	New South Wales	Contracted
Zinfra			
Zinfra	100%	Australia wide	Contracted/ Competitive

Notes:

(1) As at 31 December 2017, construction of the NGP has not completed. Construction is expected to complete in 2018.

(2) The AGPP transaction was announced in June 2018. Construction of the AGPP is expected to complete in 2019.

Jemena

As at December 31, 2017, Jemena owns or has an interest in a portfolio of network businesses in Australia's energy sector (as summarized below).

Distribution Assets

(a) Jemena Gas Networks ("JGN")

JGN is a gas distribution network in New South Wales ("NSW") established in 1837. JGN typically delivers 80 to 95 petajoules ("PJ") per annum of natural gas to more than 1.3 million homes and businesses across NSW.

(b) Jemena Electricity Networks ("JEN")

JEN owns one of the five licensed electricity distribution networks in Victoria (**Vic**) which supplies electricity to approximately 340,000 homes and businesses via approximately 6,300 km of distribution network. The network services over 950 square km of northwest greater Melbourne.

(c) ActewAGL

Jemena has a 50% interest in the ActewAGL Distribution Partnership (operating under the Evoenergy brand introduced on January 1, 2018). ActewAGL owns, plans, develops, constructs, operates and maintains the electricity network in the Australian Capital Territory ("ACT") and the gas networks in the ACT, and in Queanbeyan and Nowra in NSW. The remaining 50% of the partnership is owned by Icon Distribution Investments Limited, a subsidiary of Icon Water Limited. Icon Water Limited (formerly ACTEW Corporation Limited) is an ACT government owned company with assets and investments in water, wastewater, electricity and gas.

(d) United Energy Distribution Network ("UED")

Jemena holds a 34% shareholding in UED. UED distributes electricity throughout south east Melbourne and the Mornington Peninsula in Vic. The network covers approximately 1,472 square km and services over 665,000 customers. The remaining 66% of UED is held by CKI Group of companies comprising Cheong Kong Infrastructure, Cheong Kong Properties and Power Asset Holdings.

Transmission Assets

(a) Eastern Gas Pipeline ("EGP")

EGP transports gas 797 km from the Gippsland Basin in Vic to Sydney and regional centers and has a current capacity of approximately 130 PJ of gas per annum.

(b) Queensland Gas Pipeline ("QGP")

The QGP transports gas 627 km from the Surat and Bowen Basins and the Denison Troughs gas fields to Gladstone and Rockhampton in Queensland ("QLD") with a current capacity of approximately 55 PJ of gas per annum.

(c) Darling Downs Transmission Pipeline ("DDP")

The DDP consists of three high pressure gas transmission pipelines in South East Queensland that stretch from the Darling Downs Power Station, via Wallumbilla to Spring Gully. Collectively, the DDP is 292 km in length and provides capacity that varies from approximately 40TJ/day to 540TJ/day according to the direction of flow and inlet pressure at the receipt points

(d) VicHub Interconnect Facility ("VicHub")

VicHub is a pipeline interconnect situated at Longford, Vic. The facility was commissioned in January 2003 and enables gas to flow between the EGP, Tasmanian Gas Pipeline ("TGP") and Australian Pipeline Group's ("APA") Victorian gas transmission system. The facility has a nominal daily injection capacity of 150 terajoules ("TJ") per day and a withdrawal capacity of 135 TJ per day.

(e) Colongra Gas Transmission and Storage Facility ("Colongra")

Colongra is a 9 km, high pressure gas transmission and storage pipeline delivering gas to Snowy Hydro Limited's peaking power station at Munmorah, NSW.

(f) Northern Territory Gas Pipeline ("NGP")

In November 2015, Jemena announced it had been selected by the Northern Territory ("NT") Government to build and operate the NGP. Once built, the NGP will transport gas approximately 623 km from Tennant Creek in the NT to Mt Isa in Qld, connecting gas resources in the NT to the east coast gas market. The pipeline will have a maximum capacity of approximately 90 TJ per day.

(g) Atlas Gas Processing Plant and Pipeline ("AGPP")

In June 2018, Jemena announced that it has signed an agreement with Senex Energy to build, own, and operate the Atlas Gas Processing Plant and Pipeline ("AGPP"), connecting the "Atlas" gas field in the Surat Basin in south-east Queensland with the DDP and the Wallumbilla Gas Hub. The pipeline is 60 km and is capable of transporting approximately 40TJ of gas per day. Construction is expected to complete in 2019.

Other assets

AquaNet Recycled Water Network Sydney ("AquaNet")

AquaNet is the owner and operator of the Rosehill Recycled Water Scheme, which consists of a recycled water treatment facility with a 20 km network, capable of delivering up to 20 million litres per day of high quality recycled water to industrial and irrigation customers.

Zinfra

Jemena is complemented by Zinfra, which operates in a competitive contracting services market.

Zinfra provides engineering, design and construction as well as field based maintenance and operational services across gas, electricity, water and telecommunications assets. Zinfra delivers utility related services under contractual arrangements with utility asset owner clients and clients in adjacent markets such as mining, energy production and transport infrastructure

AusNet Services

Overview of AusNet Services Group

AusNet Services is listed on the ASX. As at the date of this Offering Circular, SP Group, through SPI, holds 31.1% of the issued shares in AusNet Services.

AusNet Services, and its subsidiaries (together, the "AusNet Services Group"), is a diversified energy infrastructure business that owns and operates the regulated electricity transmission network in Victoria, Australia, as well as an electricity distribution network in eastern Victoria and a gas distribution network in western Victoria. The AusNet Services Group has also established an unregulated business – the Commercial Energy Services division, which provides unregulated infrastructure services and specialised utility related solutions, in particular metering and asset intelligence services.

For the year ended March 31, 2018, the AusNet Services Group's total consolidated revenue was A$1,909.8 million, profit was A$291.4 million and total assets was A$12,517.3 million.

Electricity Transmission Network

The AusNet Services Group is the owner and manager of the primary regulated electricity transmission network in Victoria, Australia. The transmission network consists of over 6,600 km of transmission lines and carries electricity at extra-high voltages from generators to terminal stations around Victoria. The transmission network provides key links between the electricity transmission networks of South Australia, New South Wales and Tasmania.

The network is regulated by the Australian Energy Regulator ("AER"). The AusNet Services Group levies regulated transmission charges for connections to generator owners, distribution network service providers, customers taking supply at transmission voltages, and service charges to the Australian Energy Market Operator ("AEMO").

Electricity Distribution Network

As at March 31, 2018, the AusNet Services Group distributed electricity to approximately 722,000 customers. The AusNet Services Group's electricity distribution network spans over 80,000 square km, covering eastern metropolitan Melbourne and eastern Victoria.

The AusNet Services Group's electricity distribution network is regulated by the AER. The AusNet Services Group levies regulated Distribution Use of System ("DUoS") charge on retailers whose customers use the AusNet Services Group's network. The AusNet Services Group owns the electricity distribution network and has rights to distribute or supply electricity within its licensed distribution area. The AusNet Services Group is the only electricity distribution business licensed to operate in this area. The AusNet Services Group charges the same approved tariffs for electricity network usage regardless of which retailer sells the electricity to a customer in the AusNet Services Group's electricity distribution area.

Gas Distribution Network

As at March 31, 2018, the AusNet Services Group distributed gas to approximately 692,000 consumers located in its distribution area located in central and western Victoria. The AusNet Services Group's gas distribution network consists of approximately 11,400 km of gas mains.

The AusNet Services Group's gas distribution network is regulated by the AER. The AusNet Services Group levies regulated DuoS charges to retailers and some large distribution customers that use the AusNet Services Group's network. The AusNet Services Group owns the gas distribution assets and the right to distribute gas within its distribution area. The AusNet Services Group applies the same rates and charges for the same services, which is dependent on region and customer type, regardless of the retailer chosen by the consumer in its gas distribution area.

Commercial Energy Services

The commercial energy services division is responsible for AusNet Services' unregulated growth. This business is focused on:

- contracted infrastructure asset services, owning and operating a portfolio of unregulated assets such as wind farm connections and the Wonthaggi Desalination Plant transmission connection; and

- specialised technology solutions to enable energy data and asset intelligence services. The customers of this business primarily operate in the utility, renewables and essential infrastructure sectors of electricity, water, gas and rail.

MARKET SUPPORT SERVICES BUSINESS

SP Services, a wholly-owned subsidiary of SP, is the only MSSL in Singapore. As the MSSL, SP Services plays a key role in facilitating smooth and efficient operation and effective competition in the national electricity market of Singapore. The roles of SP Services include:

- providing contestable consumers and Retail Licensees access to the wholesale market, or acting as a counterparty settlement agent between generation companies, Retail Licensees and consumers;

- procuring electricity on behalf of non-contestable consumers, such as households and small businesses at regulated tariffs and consumers buying at spot prices;

- acting as a Retailer of Last Resort and default electricity supplier;

- maintaining a centralized data registry of all consumers to enable seamless and convenient switching of Retail Licensees; and

- providing an integrated end-to-end regulated market support services from supply turn-on/cut-off, meter reading and data management, to billing, and customer services for electricity, gas, water and refuse removal.

SP Services' core competencies include robust consumer contact and services, provision of supplies, advanced metering management and systematic billing services. These include established IT infrastructure and technology, domain knowledge and skills set, consumer outreach and data analysis, low cost-to-serve, as well as brand recognition and trust.

The above set of core competencies, which had been acquired through the years, forms the foundation that SP Group believes will help SP Services chart new frontiers and overcome challenges in the future. As the role of SP Services is expected to become more diverse in future, SP Services intends to continue to ensure that its core competencies remain relevant with the changing environment and business needs.

Market Support Services Business Operations

SP Services, a wholly-owned subsidiary of SP, is the only MSSL in Singapore. SP Services facilitates competition in the retail electricity market by enabling consumers to switch seamlessly between buying electricity from Retail Licensees and at wholesale market prices, and by acting as Retailer of Last Resort. SP Services also acts as billing agent to certain Retail Licensees and other utility principals. These principals include PUB, Citygas and various refuse vendors, to whom SP Services provides billing, meter reading (where applicable) and other customer services for gas, water and refuse utilities.

Presently, SP Services reads about 3.9 million electricity, water and gas meters every two months, and sends more than 1.6 million consolidated bills for electricity, water, gas and refuse collection services to households and businesses every month.

To manage the above business for SP Services' nationwide consumers and various Electricity Licensees, SP Services owns a comprehensive IT system to handle the mass volume of transactions and services provided which mainly comprise of billing and collection, customer services, turn on/cut off of electricity supply, meter reading and data management.

SP Services' Assets

The primary components of SP Services' assets are its IT systems as well as its data centers. SP Services' key IT systems are its Enterprise Billing System ("EBS System", billing system for Non-Contestable Consumers); its Market Support Service Licensee System ("MSSL System", billing system for Contestable Consumers) and its Meter Data Management System ("MDMS System", system for processing and storing meter reading data).

Market Support Services Licence

Under the Electricity Act, the term "market support services" refers to an exhaustive list of activities relating to the supply of electricity, including the reading of the register of any electricity meter and the management of data relating to meter reading, and the supply and sale of electricity to non-contestable consumers.

SP Services, through the Market Support Services Licence, provides market support services to consumers and Electricity Licensees. It is currently the sole entity licensed by EMA as a MSSL.

The Market Support Services Licence was last renewed on June 30, 2011 and effective for a term of 10 years commencing on January 1, 2013, unless revoked by the EMA in accordance with the Electricity Act (including where the EMA is satisfied that SP Services has gone into compulsory liquidation or voluntary liquidation other than for the purpose of amalgamation or reconstruction, or the public interest or security of Singapore so requires), see "Industry and Regulation — Electricity Industry in Singapore — Powers of the EMA to Control Electricity Licensees". SP Services may, no earlier than three and a half years and no later than two and a half years prior to the expiry of the Market Support Services Licence, apply to the EMA, in writing, for a renewal of the Market Support Services Licence. Such renewal shall be on such terms and conditions as the EMA deems fit.

Any request by SP Services to terminate the Market Support Services Licence is subject to the approval of the EMA and SP Services shall continue to be bound by the terms of the Market Support Services Licence until such time as the EMA notifies SP Services in writing of such approval. Under the Electricity Act, the Market Support Services Licence is not transferable without the approval in writing of the EMA and any purported transfer of the Market Support Services Licence shall be void.

Conditions of the Market Support Services Licence

The main conditions contained in the Market Support Services Licence include those set out below.

Authorized Activities

SP Services is licensed to conduct the Market Support Services Business and may, upon EMA's approval in writing and subject to such conditions as EMA may impose at the time of approval or any time thereafter, engage in allowed activities that (a) use an existing competency of SP Services; and (b) provide synergies with the activities comprised in the Market Support Services Business. Save as aforesaid, SP Services is not permitted to engage directly or indirectly in any other business activities or voluntarily commit to any liability in relation to such other business activities. SP Services must also procure that each of its subsidiaries and related enterprises do not engage, or seek to obtain from the EMA an electricity licence permitting it to engage, directly or indirectly in any other business activities or voluntarily commit to any liability in relation to such other business activities.

Dealings with Subsidiaries/Related Enterprises

In any event, SP Services is not permitted to provide or receive any cross-subsidies between the Market Support Services Business and any other business or allowed activity of SP Services, or any of SP Services' subsidiaries or related enterprises except as the EMA may otherwise approve in writing. SP Services is not permitted to unduly discriminate in favor of its subsidiaries or related enterprises and, except with the written consent of the EMA, must ensure that all its dealings with its subsidiaries and related enterprises are on an arm's length basis.

Provision of Non-Discriminatory Access

SP Services shall provide non-discriminatory access to persons similarly situated for services comprised within the Market Support Services Business.

Compliance with Electricity Market Rules

SP Services shall at all times comply with the provisions of the Electricity Market Rules applicable to SP Services.

Separate Accounts for Market Support Services Business

SP Services has to prepare separate accounts for the Market Support Services Business and provide the EMA with its accounting statements, and procure, in respect of its accounting statements, a report by SP Services' auditors addressed to the EMA, stating its opinion as to whether SP Services' accounting statements have been properly prepared in accordance with the Market Support Services Licence and whether they give a true and fair view of the revenues, costs, assets, liabilities, reserves and provisions of, or reasonably attributable to, the Market Support Services Business. SP Services is required to deliver to EMA a copy of the accounting statements together with the auditors' report no later than five months after the end of the relevant financial period.

Confidential Information

All information received by SP Services which relates to the Market Support Services Business (other than information which is already publicly available) is confidential and SP Services has to take reasonable measures to protect such information. SP Services cannot use such information for (i) any commercial advantage in the provision of any service other than a service comprised in the Market Support Services Business; or (ii) any purpose other than that for which such information was provided or for a purpose

permitted by the Market Support Services Licence, any applicable code of practice or the Electricity Market Rules. If requested by the EMA, SP Services is required to procure from its auditors a certificate to confirm that SP Services is in compliance with its confidentiality obligations under the Market Support Services Licence.

Investigation of Offences

If SP Services becomes aware that it may not have complied with any of the conditions of the Market Support Services Licence, or suspects that any other Electricity Licensee has breached its electricity licence or any applicable legislation, SP Services is required to report the same to the EMA and provide the EMA with such assistance and co-operation in connection with any prosecution proceedings arising therewith.

Licence Fee

SP Services pays the EMA an annual fee in respect of the Market Support Services Licence. The amount of this fee is determined by the EMA (in accordance with the terms and conditions as set out in the Market Support Services Licence) on or before April 1 of each year, and is to be paid by April 30 of each year. If SP Services fails to pay the licence fee in full when due, the EMA may require SP Services to pay late payment interest on the unpaid amount.

Governance

None of SP Services' directors may be employed by or hold any office or engagement with any person authorized by an electricity licence or exempted from the obligation to hold an electricity licence, to engage in the generation, retail, import or export of electricity or trade in any wholesale electricity market. None of SP Services' directors may be employed by or hold any office or engagement with any person authorized by a gas licence or exempted from the obligation to hold a gas licence, to engage in the shipping or retailing of gas, production of town gas or the import of natural gas or liquefied natural gas. The EMA may, on such terms as it may specify in writing and notify to SP Services, waive or vary any of such requirements.

SP Services is also not permitted to directly or indirectly through its related enterprises acquire or hold any shares in any person authorized by an electricity licence or a gas licence or exempted from the obligation to hold an electricity licence or a gas licence, to engage in any such activities. The EMA may, on such terms as it may specify in writing and notify to SP Services, waive or vary any of such requirements.

Purchase of Electricity

SP Services is not permitted to procure or purchase electricity except as required and allowed under the Regulated Supply Service Code, the Market Support Services Code, or to the extent required to conduct the Market Support Services Business or any allowed activity. The EMA may, on such terms as it may specify in writing and notify to SPPG, waive or vary any of such requirements.

Purchase of Goods and Services

SP Services is required to, in the conduct of the activities comprised in the Market Support Services Business, purchase such goods and/or services as may be reasonably required by SP Services upon the most economically advantageous terms reasonably obtainable by SP Services at the relevant time having regard to all relevant business criteria, and is not permitted to unduly discriminate between suppliers of the goods and/or services. This shall not apply to the purchase of any goods and/or services in respect of which the terms and conditions of purchase are prescribed or imposed by the Market Support Services Licence, the Electricity Market Rules, any applicable code of practice or arrangement approved by the EMA.

Prices for SP Services' Market Support Services

SP Services' charges for the provision of market support services are set annually based on a cost recovery methodology, which is developed by SP Services and approved by the EMA, and is subject to a regulated price cap. SP Services is also required to submit to the EMA for approval details of the tariffs proposed to be paid by non-contestable consumers for the supply of electricity, no less than 10 days or such other date as the EMA may determine prior the date on which the tariffs are proposed to be first levied. The EMA's approval must also be obtained for any revisions to the charging structures and charges. SP Services is required to publish the approved charges with such detail as shall be necessary to enable any person to ascertain the fees and charges to which he would become liable for the provision of SP Services' market support services.

Developmental Work / Development of Codes of Practice

The EMA may from time to time require SP Services to perform or participate in research and development activities and co-operate with other Electricity Licensees to perform research and development activities in relation to the conduct of the Market Support Services Business. SP Services has to participate in the development of any code of practice or standard of performance if it will directly or indirectly affect the Market Support Services Business of SP Services.

SP Services may propose modifications to a code of practice or standard of performance that is in force at the relevant time by notifying the EMA in writing of the proposed modification. The EMA may review the proposed modification and determine whether the proposed modification should be made.

Entry into Conditions of Service Agreement

SP Services shall enter into a conditions of service agreement, in such standard form as developed by SP Services, filed with the EMA in accordance with the terms of the Market Support Services Code and approved by the EMA, with each contestable consumer.

Disconnection and Reconnection Services

SP Services shall direct the Transmission Licensee to disconnect or reconnect consumers in the circumstances set out in and subject to the provisions of the Electricity Act, the relevant regulations made thereunder, the conditions of service agreement and the applicable codes of practice.

Provision of Metering Services

SP Services shall provide metering services (including meter reading and meter data management services) to, among others, consumers and Electricity Licensees in accordance with the relevant codes of practice and the Electricity Market Rules.

Agreements with Market Participants

Pursuant to SP Services' Market Support Services Licence, SP Services has entered into various agreements with other participants in the Singapore electricity market. With respect to the terms and conditions of its services, SP Services has entered into a Regulatory Agreement with the Energy Market Company ("EMC"), Vesting Contract Agreements with Generation Licensees, Market Support Services Agreements with Retail Licensees and market makers of electricity futures market and with the Transmission Licensee in SP Services' capacity as MSSL. These agreements provide significant limitations on its liability for damages resulting from its market support services, and each of these agreements has been subject to the prior approval of the EMA as part of the implementation of the restructuring of Singapore's electricity industry. Apart from the abovementioned agreements, SP Services has agreements with various external vendors to facilitate its billing and collection services.

Non-Regulated Businesses & Activities

SP Services provides billing, payment collection and meter reading services to principals of other utilities, namely gas, water and refuse utilities. Under the agency agreements with these principals, SP Services is authorized to provide billing and payment collection services on behalf of them.

Market Support Services Business Framework

Regulated Business

Pursuant to Condition 25 of the Market Support Services Licence, SP Services is required, in respect of each relevant year, to use its best endeavors to ensure that its aggregate revenue earned from the provision of its market support services does not exceed the allowable revenue in accordance with the stipulated Market Support Services Economic Regulation Formula.

SP Services' annual regulated revenue is determined by the Building Block Model ("BBM"). The BBM calculates the annual allowable revenue ("AR") over the five-year reset period, which will then be converted into the charges for the provision of market support services, based on the electricity sales volume forecast. The AR comprises the following components:

Capital Base [1]	x	WACC	+	Pass through expenses [2]	+	Opex [3]	=	Targeted Revenue

$$\frac{\text{Targeted Revenue}}{\text{Forecast Volumes}} \times \text{Actual Volumes}^{[4]} = \text{Collected Revenue}$$

Note 1: This is made up of opening balance of Total Equity and Long Term Borrowings at the start of the reset period, adjusted annually for the increase in the net change in Capex (i.e. Capex less Depreciation).

Note 2: Pass-Through Expenses is made up of Depreciation, Bad/Doubtful Debts, Taxes and other Exogenous Costs.

Note 3: This may include an efficiency carry-over to reward operational expenditure savings achieved in the previous period.

Note 4: If the Actual Volume deviates more than +/- 0.4% from the Forecast Volume, the EMA will adjust SP Services' price controls in subsequent years to compensate for such variance in Actual Volume.

SP Services' current five-year reset period commenced on April 1, 2018. The regulatory framework is performance-based, which allows SP Services to retain, during each regulatory period, the benefits of operating efficiency gains achieved in such regulatory period. These benefits are in the subsequent regulatory period shared equally between consumers and SP Services.

Under the regulatory framework, SP Services is subject to a volume tolerance spread of ±0.4% annually from its forecasted revenue projection. SP Services retains the benefits and bears the risk on its approved forecasted revenue projections as long as its annual actual sales volume falls within the ±0.4% volume band. Any deviation beyond the revenue band is to be treated as over- or under-recovery and to be returned to or recovered from consumers in the subsequent years.

SP Services' revenue earned from the supply of electricity and the provision of market support services is regulated based on certain formulae and parameters set out in those licences, relevant acts and codes.

Unregulated Business

SP Services also derives unregulated agency fees from acting as billing agent to certain Retail Licensees and other utility principals. These principals include PUB, Citygas and various refuse vendors, to whom SP Services provides billing, meter reading (where applicable) and other customer services for gas, water and refuse utilities.

Regulated Performance Standards

As the MSSL, SP Services is required to meet regulated performance standards as set by EMA. These performance standards are in respect to three areas of its performance: providing supply, customer contact and metering services. These performance standards are intended to ensure that electricity consumers continue to receive quality services.

The following sets forth the technical performance standards currently in effect with respect to SP Services:

Service Dimension	Service Indicator	Service Standard	Performance Target (%)
● Providing Supply	● Time taken to process application for electricity supply and reply to applicant	● 14 calendar days	● 85
	● Lead time taken to inspect large electrical installation (supply capacity greater than 45kVA) and turn-on electricity supply upon request.	● 7 working days	● 90
	● Lead time taken to test small electrical installation (supply capacity less than or equal to 45kVA) and turn-on electricity supply upon request	● 10 calendar days	● 90
	● Time taken to inspect pre-tested electrical installation and turn-on electricity supply upon request after opening of account	● 3 working days	● 98
	● Waiting time at site for appointment to turn on or cut-off electricity supply	● 1.5 hours	● 90
● Customer Contact	● Time taken to reply to a written enquiry or complaint	● 7 working days	● 95
	● Queuing time at customer service counter (enquiries and opening/closing of accounts	● 20 minutes	● 90
	● Time taken by customer service officer to pick up incoming telephone call	● 30 seconds	● 90
● Metering Services	● Time taken to attend to meter disputes at site upon notification	● 8 calendar days	● 95
	● Time taken to attend (make appointment, reply) to meter reading issues upon notification	● 5 working days	● 95
	● Time interval between successive reading of billing meter(s)	● 2 monthly	● 95

OTHERS

The "Others" segment comprises certain other activities, including (without limitation) investment holding services and the businesses described below.

District Cooling Services Business

SDC, a wholly-owned subsidiary of SP, currently provides district cooling services to developments in Singapore.

District cooling is an innovative urban utility service involving the centralized production of chilled water that is piped to commercial buildings for air-conditioning. Specially designed units within each building draw on the cooling properties of the water to lower the temperature of the air passing through the air-conditioning system, providing buildings in the area with an optimal indoor climate. Instead of individual buildings having their own chillers, district cooling reaps the benefits of economies of scale by sharing chiller capacity, operated and maintained by a large and professional team of technical staff.

District cooling being an energy and economically efficient urban utility service, presents attractive value propositions to building owners including round-the-clock availability and support, on-demand flexibility, high supply reliability, more space for alternative use, lower initial and recurrent operating costs and high energy efficiency for existing and new developments.

SDC commenced commercial operations in May 2006 with One Raffles Quay being the first development to receive chilled water supplies. In May 2010, SDC commissioned its second district cooling plant at Marina Bay Sands. SP Group believes that the district cooling system at Marina Bay is one of the world's largest fully underground district cooling system by total installed capacity.

SDC is currently operating two district cooling plants and one satellite plant with a total plant capacity of 62,000 Refrigeration Tons. These plants are interconnected by a pair of 5km pipeline.

These district cooling plants are operated by a team of operators round the clock and produce 600,000 tonnes of chilled water per day that is continuously pumped through a network to serve a total area of 1.6 million square meter to date.

Amongst SDC's small customer base in the Marina Bay area are key developments such as One Raffles Quay, the Marina Bay Sands Integrated Resort and the Marina Bay Financial Centre in Singapore.

SDC's adoption of industry best practice in asset management has enabled it to deliver reliable and round the clock district cooling services with no supply disruptions to its customers since operations started in 2006.

In 2015, SP incorporated a wholly-owned subsidiary, Shirui Energy Engineering and Technology (Chongqing) Co., Ltd. ("Shirui Energy"), to focus on the business of providing energy-efficient technology and engineering services, in particular through the provision of end-to-end chilled water and hot water services in China. Shirui Energy is currently designing and building an advanced district cooling system for CapitaLand's Raffles City Chongqing development, a prime landmark strategically located in the heart of Chongqing, People's Republic of China. It is targeted to be operationally ready in early 2019.

District Cooling Services Licence

The term "district cooling service" is defined in the District Cooling Act as the sale of coolant for space cooling in a service area by a licensee operating a central plant capable of supplying coolant via pipe to more than one building in the service area. The District Cooling Act makes it an offence to provide district cooling services to any service area unless authorized to do so by a district cooling services licence granted by the EMA. The Minister may declare an area to be a service area where district cooling services are to be provided to the area, on such terms and conditions as he thinks fit.

SDC, through the District Cooling Services Licence, is currently the sole entity licensed to provide district cooling services in Singapore. The District Cooling Services Licence was issued by the EMA on April 1, 2006.

The District Cooling Act provides that it is SDC's duty, as a District Cooling Services Licensee to (a) maintain a reliable, efficient, co-ordinated and economical district cooling system in accordance with such codes of practice or other standards of performance as may be issued or approved by the EMA under the District Cooling Act; and (b) ensure public safety in relation to the provision of district cooling services. SDC is prohibited as a District Cooling Services Licensee from doing or omitting to do any act which will adversely affect, directly or indirectly, the reliability and stability of district cooling services provided to consumers.

The term of the District Cooling Services Licence is 30 years, unless revoked by the EMA in accordance with the District Cooling Act (including where the EMA is satisfied that SDC has gone into compulsory liquidation or voluntary liquidation other than for the purpose of amalgamation or reconstruction, or the public interest or security of Singapore requires), see "Industry and Regulation — District Cooling Industry in Singapore — Powers of the EMA to Control District Cooling Services Licensees". SDC may, no later than three years prior to the expiry of the District Cooling Services Licence, apply to the EMA, in writing for a renewal of the District Cooling Services Licence. Such renewal shall be on such terms and conditions as the EMA deems fit.

Any request by SDC to terminate the District Cooling Services Licence is subject to the approval of the EMA, and SDC continues to be bound by the terms of the District Cooling Services Licence until such time as the EMA notifies SDC in writing. Under the District Cooling Act, the District Cooling Services Licence is not transferable and any purported transfer of the District Cooling Services Licence shall be void.

Conditions of the District Cooling Services Licence

The main conditions contained in the District Cooling Services Licence include those set out below.

Authorized Activities

SDC is licensed to conduct the District Cooling Services Business and may, upon the EMA's approval in writing and subject to such conditions as the EMA may impose at the time of approval or any time thereafter, engage in allowed activities that (a) use an existing competency of SDC; and (b) provide synergies with the activities comprised in the District Cooling Services Business. Save as aforesaid, SDC is not permitted to engage directly or indirectly in any other business activity or voluntarily commit to any liability in relation to such other business activity. SDC must also procure that each of its subsidiaries and related enterprises do not engage, directly or indirectly in any other business activities or voluntarily commit to any liability in relation to such other business activities.

Dealings with Subsidiaries/Related Enterprises

In any event, SDC is not permitted to provide or receive any cross-subsidies between the District Cooling Services Business and any other business of SDC, or any of SDC's subsidiaries or related enterprises except as the EMA may otherwise approve in writing. SDC is not permitted to unduly discriminate in favor of its subsidiaries or related enterprises and, except with the written consent of the EMA, must ensure that all its dealings with its subsidiaries and related enterprises are on an arm's length basis.

Separate Accounts for District Cooling Services Business

SDC has to prepare separate accounts for the District Cooling Services Business and provide the EMA with its accounting statements, and procure, in respect of its accounting statements, a report by SDC's auditors addressed to the EMA, stating its opinion as to whether SDC's accounting statements have been properly prepared in accordance with the District Cooling Services Licence and whether they give a true and fair view of the revenues, costs, assets, liabilities, reserves and provisions of, or reasonably attributable to, the District Cooling Services Business. SDC is required to deliver to EMA a copy of the accounting statements together with the auditors' report no later than five months after the end of the relevant financial period.

Confidential Information

All information received by SDC which relates to the District Cooling Services Business (other than information which is already publicly available) is confidential and SDC has to take reasonable measures to protect such information. SDC cannot use such information for (i) any commercial advantage in the provision of any service other than a service comprised in the District Cooling Services Business; or (ii) any purpose other than that for which such information was provided or for a purpose permitted by the District Cooling Services Licence, or any applicable code of practice. If requested by the EMA, SDC is required to procure from its auditors a certificate to confirm that SDC is in compliance with its confidentiality obligations under the District Cooling Services Licence.

Investigation of Offences

If SDC becomes aware that it may not have complied with any of the conditions of the District Cooling Services Licence, or suspects that any person has contravened any applicable legislation in relation to the District Cooling Services Business, SDC is required to report the same to the EMA and provide the EMA with such assistance and co-operation in connection with any prosecution proceedings arising therewith.

Licence Fee

SDC pays the EMA an annual fee in respect of the District Cooling Services Licence. The amount of this fee is determined by the EMA (in accordance with the terms and conditions as set out in the District Cooling Services Licence) on or before April 1 of each year, and is to be paid by April 30 of each year. If SDC fails to pay the licence fee in full when due, the EMA may require SDC to pay late payment interest on the unpaid amount.

District Cooling System Development Plan

SDC has to carry on the District Cooling Services Business in accordance with the District Cooling Supply Code and any applicable code of practice or standard of performance as may be approved or issued by the EMA under the District Cooling Act. SDC has to periodically submit to the EMA its District Cooling System Development Plan (including an implementation schedule and forecasted demand).

SDC must provide non-discriminatory access to persons similarly situated for services comprised within the provision of district cooling services under the District Cooling Services Licence.

Change in Shareholding Structure / Transfer of Effective Management or Control

SDC is not permitted to effect any change in its shareholding structure or the voting rights attaching to any of its shares without the EMA's prior written consent. SDC is also not permitted to relinquish or encumber its ability to exercise effective management or control of its District Cooling Services Business.

Abuse of Monopoly Power or Dominant Market Position

SDC is prohibited from taking or omitting to take any action or otherwise conducting itself in a manner which is an abuse of its monopoly power or dominant market position.

Prices for SDC's District Cooling Services

SDC's charges for the provision of district cooling services, in the service area, are set based on a cost recovery methodology, which is developed by SDC and approved by EMA, and are subject to a regulated price cap. In any event, SDC is required to ensure that the prices charged for the provision of district cooling services is not more than the cost of chilled water produced by conventional air-conditioning systems. The EMA's approval must also be obtained for any revisions to the charging structures and charges. SDC is required to publish the approved charges with such detail as shall be necessary to enable any person to ascertain the fees and charges to which he would become liable for the provision of SDC's district cooling services.

Purchase of Goods and Services

SDC is required to, in the conduct of the District Cooling Services Business, purchase such goods and/or services as may be reasonably required by SDC upon the most economically advantageous terms reasonably obtainable by SDC at the relevant time having regard to all relevant business criteria, and is not permitted to unduly discriminate between suppliers of the goods and/or services.

Research and Developmental / Codes of Practice

The EMA may from time to time require SDC to perform or participate in research and development activities and to co-operate with other licensees to perform research and development activities in relation to the conduct of the District Cooling Services Business. SDC is also required to participate in the development of any code of practice and standard of performance to be issued by the EMA if it will directly or indirectly affect the District Cooling Services Business of SDC.

SDC is required to (periodically and at EMA's request) review any code of practice and standard of performance. SDC is also required to keep EMA fully informed of any review process and any proposals for revision. Any change to any applicable code of practice and standard of performance is subject to the approval of the EMA and any other relevant government authorities.

Allowed Activities

SDC has been authorized to carry out various allowed activities under the District Cooling Services Licence, subject to certain conditions. These activities are the (i) provision of district cooling services to premises located outside the service area by interconnecting such premises to the district cooling system serving the service area; (ii) provision of hot water supplies; and (iii) provision of consultancy services on the design, implementation and operation of chiller and heating/ventilation/air-conditioning systems globally. Pursuant to such authorized activity, SDC is required to ensure, among others, that (a) each allowed activity is ring-fenced and kept separate from the District Cooling Services Business and a separate account is kept in respect of each allowed activity, (b) the provision of each allowed activity will not adversely affect the provision of district cooling services to users in the service area by, among others, prioritising the availability of resources for or in relation to SDC's District Cooling Services Business over the allowed activity, (c) SDC will not deny the provision of district cooling services to any user in the service area, and (d) ensure that the prices that SDC charges to any customers inside the service area cannot be higher than the prices charged by SDC to customers outside the service area for equivalent services.

Notification to Customers on Expiry of Licence

SDC is required to notify its consumers of the expiration of the District Cooling Services Licence not later than 24 months prior to the expiry of the District Cooling Services Licence.

Regulatory Framework for the District Cooling Services Business

SDC shall, in respect of each relevant year ensure that the revenue from the provision of district cooling services in the service area cannot exceed the maximum average revenue per kWrh calculated in accordance with the following formula (the "District Cooling Services Economic Regulation Formula"):

Max. revenue (per kWrh)	=	Annual escalation of fixed component	+	Benchmark cost of electricity and water	+	Correction factor for over/ under recovery	-	Sharing of economic efficiency contribution

where "fixed component" refers to the capacity charge.

The EMA shall within a reasonable time period prior to the start of each regulatory period, review the parameters of the District Cooling Services Economic Regulation Formula to take effect at the start of that regulatory period. The duration of each regulatory period shall be determined by the EMA after consultation with SDC.

SDC is required to return 50% of any gains to the regulated customers, derived in excess of total fixed and variable operating costs after achieving efficient operations of SDC's district cooling plants.

Revenue generated from the provision of district cooling services to the service area declared by the Minister for Trade and Industry under Section 7 of the District Cooling Act is regulated by the EMA according to the above District Cooling Services Economic Regulation Formula.

The prices charged for providing district cooling services have to be approved by the EMA and cannot be more than the cost of chilled water produced by conventional air conditioning systems. The tariff is regulated by EMA once every half year.

Further, pursuant to the District Cooling Service Licence, the revenue from providing district cooling services in the service area cannot exceed the maximum average revenue per kWrh. The excess deficit between the amount charged to customers and the revenue gained will be returned/ recovered to customers through the tariff. Under/over recovery is recovered / returned to customers through the adjustment of the half yearly tariff rates. These are proposed by SDC on a bi-annual basis and are to be approved by the EMA.

Real Estate

In support of Singapore's national agenda to optimize land use, LRE, a wholly-owned subsidiary of SP, embarked on its first real estate development project located along Pasir Panjang Road in Singapore, comprising an underground transmission substation, SPPA's operational support center (as described in more detail in the section " — Transmission and Distribution Business in Singapore — Electricity T&D Business") and a commercial office tower with ancillary retail space to be built above the underground substation.

LRE owns and will operate the commercial office tower and ancillary retail space above the underground substation. The commercial office block is designed to cater to a wide range of tenant types and expected to meet the anticipated growth in demand for office space in the Pasir Panjang area.

The development is planned for completion by the end of 2025. The projected capital expenditure cost for the development of the commercial office block with ancillary retail space is expected to be approximately S$1.1 billion. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Capital Expenditure" for details of how SP Group intends to fund its capital expenditure.

Following completion of the development, SP Group expects to retain ownership of the development and to lease out space within the commercial office tower and ancillary retail space to third parties on terms to be commercially agreed at that time.

Digital Solutions

SP Group aims to capture new digital opportunities across the electricity value chain by leveraging on its strong in-house digital capabilities in order to design and develop a digital platform to provide solutions for three areas: Digital Consumer, Digital Energy and Digital Grid. These solutions aim to provide sustainability choices and cost savings to SP Group's customers using cutting-edge technologies while ensuring the reliability, stability and security of SP Group's grid network.

Digital Consumer products aim to engage consumers with better user experiences, more choices and better visibility of their energy consumption. SP Group has developed and launched its flagship SP Utilities mobile application which is designed to bring to its consumers fast and convenient access to its services on the go. The key services that SP Utilities brings to its consumers include, among others, allowing its consumers to view and pay their bills using credit cards and allowing its consumers to view their consumption trends and compare their energy and water consumption against the average consumption of their neighbours. Its consumers can also submit meter readings, report incidents and chat with its staff from its digital contact centre which allows it to provide customer support effectively. SP Group has also launched the "SP Kiosks" at its service centers, which provide alternative service points for customers to open and close utility accounts, as well as view and pay their utility bills on their own.

Digital Energy solution is targeted at customers willing to adopt technologies such as renewable energy to lower their energy cost while meeting their sustainability goals. This involves using digital technology to connect microgrids, energy storage, renewable energy and electric mobility assets. For example, SP Group is providing solutions for Sembcorp Marine to optimize its energy consumption and harness solar energy for utility savings.

In addition, SP Group has signed separate memorandums of understanding with the Housing & Development Board and Singapore Institute of Technology to develop integrated energy and multi-energy urban micro-grid solutions, respectively.

SP Group has also announced its plans to provide electric vehicle charging services to the public in Singapore. SP Group will own and operate a nation-wide network of charging infrastructure that enables electric vehicle drivers access to electric chargers with a digital solution to show its availability as well as incorporating a mobile payment solution. SP Group plans to build 500 electric vehicle charging points islandwide by 2020.

Digital Grid solution is targeted at utilities who wish to have visibility over their network assets' health to ensure reliability while optimizing their operational cost; and maintaining network stability and security with more distributed energy sources being introduced to the network.

EMPLOYEES

As of March 31, 2018, SP Group employed more than 3,600 employees. The following table sets forth a breakdown of SP Group's employees by business segment as of FY16 to FY18.

	As of March 31,		
	2016	**2017**	**2018**
Transmission & Distribution business	2,432	2,379	2,279
Market Support Services business	777	752	690
District Cooling business	76	83	86
Corporate Support & Others	517	561	568
Total Headcount	**3,802**	**3,775**	**3,623**

The remuneration package of most of SP Group's non-executive employees is established through a collective bargaining process. SP Group's standard remuneration package comprises salary, bonus and benefits such as annual leave, family care leave, medical leave, medical benefits and flexible benefits. Apart from the above, employees may also receive work-related allowances such as shift allowances and transport reimbursement.

SP Group also provides contributions for all eligible employees to the CPF, a mandatory comprehensive social security savings program for workers in their retirement that is funded by employer and employee contributions.

SP Group does not currently have an employee stock option plan.

SP Group encourages employee training and development and its employees, based on its business requirements, may participate in various training programs. In addition to in-house courses, employees can be nominated for external courses, seminars, industrial visits and external attachments as part of SP Group's life-long learning initiatives.

LABOUR RELATIONS

Most of SP Group's employees are represented by a single employees' union, Union of Power and Gas Employees ("UPAGE"). As of April 2018, 95% of non-executives are represented by the union through the Collective Agreement ("CA") signed in August 2016 covering the period March 2016 to February 2019. The quantum of employee bonus and compensation increments are discussed separately with the union on an annual basis. A performance appraisal process is used to determine variable bonus and increment.

SP Group believes that its relationship with its employees is good. No work stoppages or other labor disruptions have occurred or are threatened.

INSURANCE

SP Group's major transmission assets are insured at their replacement values under an industrial all risks insurance policy. SP Group has also procured terrorism insurance cover for its most important network assets, including the PSCC and its transmission network substations, cable tunnels and terminal buildings, the ORFs, the offshore pipelines and its district cooling plants. SP Group has insurance against business interruption risk for its key assets owning companies under its industrial all risk and terrorism insurance cover as assessed to be appropriate for coverage. SP Group is also protected against certain third-party claims under a combined liability insurance policy, including third-party property and personal injury claims and claims for sudden pollution liability and product liability. Cyber insurance policy is also in place to insure against cyber-related security and privacy third-party liability claims and associated costs. For risks relating to the adequacy of SP Group's insurance coverage and a discussion of its uninsurable risks, see "Risk Factors — SP Group's insurance coverage may not be adequate and any uncovered losses could adversely affect its business".

SP Group's insurance policies are underwritten by established international insurers. SP Group's insurance coverage is subject to exclusions and limitations as to coverage and recovery amounts which it believes are standard in the market in which it operates.

SP Group's insurance broker conducts risk assessment, which includes annual physical surveys and regular discussions to update any risk changes that may occur from time to time, and recommends changes to its insurance programs, as necessary. The insurance broker also advises SP Group on the extent of its insurance coverage and the adequacy of sums insured.

SUPPLIERS

SP Group does not rely on any single supplier for key services or equipment to mitigate against single supply source failures. Terms and conditions for each contract are specific to the nature of goods and services procured. SP Group's suppliers have proven track records in the supply of goods and services, or are able to provide satisfactory project references from respectable utility companies.

PROPERTY

Significant properties that SP Group owns primarily comprise its transmission and distribution network assets, offshore pipelines and leasehold interests in their associated real property (comprising leasehold interests in buildings (such as substations, tunnels and shafts) with remaining lease terms of up to 40 years, and leasehold land with remaining lease terms ranging from 13 years to 99 years).

In particular, SP Group owns a land parcel with a leasehold period of 99 years, on which it plans to develop a commercial office tower as part of its development project along Pasir Panjang in Singapore. See "Other Businesses — Real Estate" for more information regarding this development.

SP Group also owns its current office premises at 2 Kallang Sector, Singapore 349277 with a remaining lease period of approximately 27 years.

LEGAL AND REGULATORY PROCEEDINGS

SP Group is not involved in any legal or arbitration proceedings that may have, either individually or in the aggregate, a material adverse effect on its financial condition or results of operations, and SP Group is not aware that any such proceedings are pending or threatened.

SP Group may commence some potential litigation or arbitration proceedings relating to work carried out and services rendered by its contractors or suppliers in the ordinary course of business relating to the transmission and distribution of electricity and gas. Due to the nature of these proceedings, SP Group is not able to predict the ultimate outcomes of these proceedings, some of which may be less than favorable or unfavorable to SP Group. However, SP Group does not expect the outcome of these proceedings, either individually or in the aggregate, to have a material adverse effect on SP Group's financial condition or results of operations.

SP Group's investee companies in Australia may become a party to various other litigation matters in the ordinary course of business. It is not possible to estimate with any certainty the ultimate legal or financial liability with respect to those litigation matters.

RISK MANAGEMENT

SP Group is exposed to specific risks in the conduct of its business and the environment in which it operates. These include foreign currency, interest rate, credit, liquidity, regulatory and supply source failures risks which arise in the normal course of SP Group's business. Generally, SP Group's overall objective is to manage and minimize its exposure to such risks. For details on SP Group's policies for managing each of these risks, please refer to "Management's Discussion and Analysis of Financial Condition and Results of Operations — Risk Management".

BOARD OF DIRECTORS OF SP AND SENIOR MANAGEMENT OF SP GROUP

Board of Directors of SP

The following table sets forth the members of the Board of Directors of SP:

Name	Position
Tan Sri Mohd Hassan Marican	Chairman
Mr Tan Chee Meng	Director
Mr Choi Shing Kwok	Director
Mr Tan Puay Chiang	Director
Mr Ong Yew Huat	Director
Mr Timothy Chia Chee Ming	Director
Mr Ng Kwan Meng	Director
Mr Tan Kang Uei, Anthony	Director
Mr Wong Kim Yin	Director

Tan Sri Mohd Hassan Marican joined the board of Singapore Power Limited in February 2011. Tan Sri Hassan is the Chairman of Singapore Power Limited. He is also the Chairman of Pavilion Energy Pte Ltd, Pavilion Gas Pte Ltd, Sembcorp Marine Ltd and Lan Ting Holdings Pte Ltd. His other directorships include Sembcorp Industries Ltd, Sarawak Energy Berhad, Lambert Energy Advisory Ltd, mh Marican Sdn Bhd and Khazanah Nasional Berhad. Tan Sri Hassan is also a Senior International Advisor of Temasek International Advisors, a subsidiary of Temasek Holdings.

Tan Sri Hassan was the President and Chief Executive Officer of Malaysia's Petroliam Nasional (PETRONAS) from 1995 until his retirement in February 2010, with over 30 years of experience in the energy sector, finance and management.

Tan Sri Hassan holds an honorary doctorate from the University of Malaya and is a Fellow of the Institute of Chartered Accountants in England and Wales.

Mr Tan Chee Meng joined the board of Singapore Power Limited in August 2005. He was appointed as a Director of AusNet Services Limited on May 11, 2016.

Mr Tan is a Senior Counsel and the Deputy Chairman of WongPartnership LLP. Mr Tan sits on the boards of Urban Redevelopment Authority and St Gabriel's Foundation. He is also the Chairman of the School Management Committee of Assumption English School and a member of the Land Transport Authority's Kuala Lumpur - Singapore High Speed Rail Advisory Board.

Mr Tan holds a Bachelor's degree (First Class Honours) in Engineering from the University of Canterbury of New Zealand, a Bachelor of Law degree from the National University of Singapore and a Master of Laws (First Class Honours) from the University of Cambridge.

Mr Choi Shing Kwok joined the board of Singapore Power Limited in August 2006. He is also currently the Director of the ISEAS-Yusof Ishak Institute.

Mr Choi was formerly the Chairman of PowerGas Limited and a Director of SP PowerAssets Limited. He has also served on the boards of many other companies and statutory boards in the past.

Formerly the Permanent Secretary of the Ministry of Transport and the Ministry of the Environment and Water Resources, Mr Choi has had a long career in government and was awarded the Meritorious Service Medal in 2000 and the Long Service Award in 2004 by the Government of Singapore. He has also received state awards from foreign governments.

Mr Choi holds a Bachelor's and Master's degree in Engineering from the University of Cambridge. He also received a Master of Public Administration degree from Harvard University.

Mr Tan Puay Chiang joined the board of Singapore Power Limited in April 2012. He is the Chairman of SP Services Limited and a Director on the board of Keppel Corporation Limited.

Mr Tan was the Chairman of ExxonMobil (China) Investments Co from 2001 to 2007 and was a Director of Neptune Orient Lines Ltd. During his 37-year career with Mobil and later ExxonMobil, he held extensive executive management roles in Australia, Singapore and United States. Mr Tan had also been a member of various business and industry boards including the Australian Institute of Petroleum, the Washington, D.C. – based National Policy Association, the American Chamber of Commerce in Hong Kong and the Energy Studies Institute, National University of Singapore.

Mr Tan holds a Bachelor of Science (First Class Honours) from the University of Singapore and a Master of Business Administration (Distinction) from New York University.

Mr Ong Yew Huat joined the board of Singapore Power Limited in February 2013. Mr Ong is also the Chairman of United Overseas Bank (Malaysia) Bhd, Singapore Tyler Print Institute and the Tax Academy of Singapore. His other directorships include United Overseas Bank Limited, Singapore Mediation Centre and Ascendas-Singbridge Pte Ltd.

Mr Ong was a former board member of the Singapore Accounting and Corporate Regulatory Authority and the Public Accountants Oversight Committee. He retired as the Executive Chairman of Ernst & Young Singapore in 2012 after serving 33 years with the firm.

Mr Ong holds a Bachelor of Accounting (Honours) degree from the University of Kent at Canterbury. He is a member of the Institute of Chartered Accountants in England and Wales and the Institute of Singapore Chartered Accountants.

Mr Timothy Chia Chee Ming joined the board of Singapore Power Limited in June 2014.

Mr Chia is Chairman of Gracefield Holdings Limited and Hup Soon Global Corporation Private Limited. He sits on the boards of several other private and public companies, including Fraser and Neave, Limited, The Straits Trading Company Limited, Vertex Venture Holdings Ltd, Ceylon Guardian Investment Trust PLC, Ceylon Investment PLC and Malaysia Smelting Corporation Berhad. He is a member of the Board of Trustees of the Singapore Management University and the Singapore Indian Development Association (SINDA), Advisory Council Member of the ASEAN Business Club ("ABC") and the co-chair of ABC Singapore. He is also a member of the Advisory Board of the Asian Civilisations Museum.

From 1986 to 2004, he was a Director of PAMA Group where he was responsible for private equity investments and served as President from 1995 to 2004. He was previously Chairman – Asia for Coutts & Co Ltd and Senior Advisor to EQT Funds Management Ltd.

Mr Chia holds a Bachelor of Science cum laude, majoring in Management, from the Fairleigh Dickinson University, USA.

Mr Ng Kwan Meng joined the board of Singapore Power Limited in June 2014. He is the Chairman of SP Group Treasury Pte. Ltd. and his other directorships include Tasek Jurong Limited, British and Malayan Trustees Limited and British and Malayan Holdings Limited.

Mr Ng was the Managing Director and Head, Group Global Markets at United Overseas Bank. He was also an Executive Director and Chief Executive Officer of UOB Bullion and Futures Ltd and a Director of Tuas Power Ltd. In addition, Mr Ng was involved in the promotion of the forex and debt capital markets in Singapore. He was a member of the Singapore Foreign Exchange Market Committee, the working group on Financial Industry Competency Standards and National Integration Working Group for the Community.

Mr Ng holds a Bachelor of Social Science (Honours) degree from the National University of Singapore.

Mr Tan Kang Uei, Anthony joined the board of Singapore Power Limited in October 2017. He joined SPH as Executive Vice-President, Chinese Media group in February 2015. He was appointed Deputy CEO of Singapore Press Holdings Limited (SPH) on July 1, 2016.

Prior to joining SPH, Mr Tan was Deputy Secretary (Policy), Ministry of Health and concurrently Special Assistant to the late Mr Lee Kuan Yew from 2011-2014. During his career with the Singapore Public Service spanning more than 15 years, he served in various organizations including the Ministries of Finance, Home Affairs, Manpower as well as the People's Association.

Mr Tan is currently Chairman of several SPH subsidiaries, viz. Invest Healthcare Pte Ltd and SGCM Pte Ltd. He also serves on other SPH subsidiaries and private companies.

Mr Tan graduated from the National University of Singapore in 1997 with a Bachelor of Social Science (Honours) in Political Science. He also has a Master of Science (Management) degree from the Stanford Business School.

Mr Wong Kim Yin joined the board of Singapore Power Limited in January 2012. Mr Wong is a Director and the Group Chief Executive Officer of Singapore Power Limited. He is also the Chairman of SP PowerAssets Limited, Singapore District Cooling Pte Ltd and SP Digital Holdings Pte. Ltd. as well as a Director of SP Services Limited.

Mr Wong is also the Chairman of SkillsFuture Singapore Agency, Lifelong Learning Endowment Fund Advisory Council and Learning Gateway Ltd. as well as a Director of SeaTown Holdings Pte Ltd., China Venture Capital Fund Corporation Ltd, and DSO National Laboratories. He is also a member of the Board of Governors, Singapore Polytechnic.

Mr Wong was formerly Senior Managing Director, Investments at Temasek International (Pte) Ltd, where he had been responsible for investments in various sectors, including the energy, transportation and industrial clusters prior to joining Singapore Power Limited. Prior to Temasek, he was with the AES Corporation, a global power company listed on the New York Stock Exchange.

Mr Wong holds a Bachelor of Science degree from the National University of Singapore and a Master of Business Administration degree from University of Chicago.

Committees of SP's Board

SP's Board is supported by board committees to facilitate effective supervision of the management. These are the Board Executive Committee, the Audit Committee, the Board Risk Management Committee, the Nominating Committee and the Staff Development and Compensation Committee.

As and when required for specific projects, special board steering committees and due diligence committees are formed to provide support and guidance to management.

Board Executive Committee

The members of the Board Executive Committee ("Exco") are Tan Sri Mohd Hassan Marican (Committee Chairman), Mr Tan Chee Meng, Mr Tan Puay Chiang, Mr Timothy Chia Chee Ming and Mr Wong Kim Yin. The ExCo assists the Board in overseeing the performance of SP, its subsidiaries and its associated companies. It also reviews, endorses, approves or recommends to the Board for approval, acquisitions, financing plans, and the annual operating and capital expenditure budgets of SP Group. The ExCo typically meets at least four times a year.

Audit Committee

The members of the Audit Committee ("AC") are Mr Ong Yew Huat (Committee Chairman), Mr Tan Chee Meng, Mr Choi Shing Kwok and Mr Ng Kwan Meng. Members of the AC have relevant accounting or related financial management expertise and experience to discharge their responsibilities.

The main function of the AC is to assist the Board in discharging its statutory and oversight responsibilities over the SP Group relating to the financial reporting and audit processes, the systems of internal controls and the process of monitoring compliance within applicable laws, regulations and codes of conduct.

Responsibilities of the AC include:

- Review and approval of the audit plans of external and internal auditors;
- Review of the adequacy of the internal audit function;
- Review of the financial statements of SP Group and SP;
- Review of the independence and objectivity of the external auditors; and
- Nomination of external auditors for reappointment.

The AC typically meets at least three times a year.

Board Risk Management Committee

The members of the Board Risk Management Committee ("BRMC") are Mr Timothy Chia Chee Ming (Committee Chairman), Mr Tan Puay Chiang, Mr Tan Kang Uei, Anthony and Mr Wong Kim Yin. The BRMC assists the Board in fulfilling its oversight responsibilities by reviewing:

- the type and level of business risks that SP, its subsidiaries and associated companies undertake on an integrated basis to achieve their business strategy; and
- the policies, procedures and methodologies for identifying, assessing, quantifying (where appropriate), monitoring and mitigating risks.

The BRMC is supported by the Group Risk Management Office in its risk governance responsibilities. While the BRMC oversees SP Group's risk management framework and policies, the risk ownership remains with the business groups.

The BRMC typically meets at least three times a year.

Nominating Committee

The members of the Nominating Committee ("NC") are Mr Tan Chee Meng (Committee Chairman), Tan Sri Mohd Hassan Marican, Mr Choi Shing Kwok and Mr Ong Yew Huat. The NC is responsible for formulating policies and guidelines on matters relating to Board appointments, reappointments, retirement and rotation of directors.

The NC, in consultation with the Chairman of the Board, considers and makes recommendations to the Board on the appropriate size and needs of the Board. The NC also identifies and reviews the nominations of candidates for the appointment of the Group Chief Executive Officer, the board members and board committees of SP and its significant investee companies and the managing directors (or their equivalent) of certain of its significant investee companies.

The NC typically meets at least twice a year.

Staff Development & Compensation Committee

The members of the Staff Development & Compensation Committee ("SDCC") are Tan Sri Mohd Hassan Marican (Committee Chairman), Mr Timothy Chia Chee Ming, Mr Ng Kwan Meng and Mr Choi Shing Kwok. The SDCC oversees the remuneration of the Group Chief Executive Officer and senior executives of the SP Group. The SDCC establishes and maintains an appropriate and competitive level of remuneration to attract, retain and motivate senior executives to manage SP Group successfully.

No Director is involved, or has participated, in any proceedings with respect to his or her own remuneration.

The SDCC typically meets at least twice a year.

Senior Management of SP Group

The following table sets forth the members of the senior management of SP Group:

Name	Position
Ms Amelia Champion	Head, Corporate Affairs
Ms Jeanne Cheng	Chief Risk Officer
Ms Lena Chia Yue Joo	Chief Legal Officer & General Counsel
Mr Michael Chin Yong Kok	Chairman, SP PowerGrid
Mr Chuah Kee Heng	Managing Director, SP Services
Mr Goh Chee Kiong	Head, Strategic Development
Mr Stanley Huang Tian Guan	Chief Financial Officer
Mr Jimmy Khoo Siew Kim	Managing Director, Singapore District Cooling Pte Ltd
Ms Lim Chor Hoon	Chief Talent Officer
Mr Lim Howe Run	Managing Director, Group CEO's Office & Head, Strategic Investments
Mr Ng Seng Huwi	Chief Human Resource Officer
Mr Ong Teng Koon	Head, Regulatory Management
Mr Samuel Tan Seow Beng	Chief Digital Officer
Mr Wong Chit Sieng	Chief Corporate Officer
Mr Wong Kim Yin	Group Chief Executive Officer

Ms Amelia Champion is Head of Corporate Affairs of Singapore Power Limited, overseeing communications, branding, employee volunteerism and philanthropy. She is also a director of SP PowerGrid Limited and SP Services Board.

Ms Champion has built her career in healthcare and social service. At the SingHealth Group, Ms Champion was Director, Group Communications, driving initiatives to unify employees across the group of institutions and reinforce the Group's standing in Academic Medicine. At the National Kidney Foundation, she headed Public Relations, Patient Relations, Events and Promotions with responsibilities in running nationwide campaigns to promote organ donation, international healthcare conferences and creating holistic, self-help programs for patients. Ms Champion serves in the Executive Committee of Paya Lebar Methodist Girls' School Alumni Association.

Ms Champion has a Bachelor of Arts degree from the National University of Singapore and a Master of Arts degree in Communication Management from the University of South Australia.

Ms Jeanne Cheng is the Chief Risk Officer of Singapore Power Limited. She is also a director of a number of companies including SP PowerAssets Limited, PowerGas Limited, Singapore District Cooling Pte Ltd and SGSP (Australia) Assets Pty Ltd.

Ms Cheng has been with SP Group for close to 22 years. Prior to her current position, she was the Managing Director of SP Services Limited for 9 years and held senior positions in Corporate Communications and Business Development. Ms Cheng has worked as a media and communications specialist in both private and public sector companies. She was awarded the Public Service Medal in 2009 and the Public Service Star in 2017 for her community work.

Ms Cheng holds a Bachelor's degree in Arts from the National University of Singapore.

Ms Lena Chia Yue Joo is the Chief Legal Officer and General Counsel of Singapore Power Limited. A former member of Temasek's senior management team, Ms Chia was previously the Managing Director of the Legal and Regulations division of Temasek Holdings (Private) Limited from January 1, 2005 to June 9, 2014. Prior to joining Temasek, Ms Chia was a lawyer in private practice until 1994, when she joined the Singapore Technologies group as an in-house counsel. She held various positions in the Singapore Technologies group, the last being Director, Legal, heading up the Legal team of Singapore Technologies Pte Ltd.

Ms Chia also sits on the boards of directors of several companies including SP Digital Holdings Pte. Ltd. and SP Real Estate Holdings Pte. Ltd., Singapore Power International Pte Ltd and SGSP (Australia) Assets Pty Ltd. Ms Chia holds a Bachelor of Laws (Honours) degree from the National University of Singapore and has been admitted as an advocate and solicitor of the Supreme Court of Singapore. Ms Chia also attended the Advanced Management Program at Harvard Business School in 2012.

Mr Michael Chin Yong Kok is the Chairman of SP PowerGrid Board. He holds a Bachelor of Science (First Class Honours) degree and a Master of Science degree from the University of Manchester and a Master of Business Administration degree from the National University of Singapore. Mr Chin started his career as an engineer in the Public Works Department and progressed to a range of senior management roles in both technical and commercial disciplines.

Prior to joining SP PowerGrid, he was the Executive Vice President (Projects) at Resorts World Sentosa ("RWS") at Genting Singapore PLC. Prior to RWS, he held the appointment of an Executive Vice President of Corporate Development and Properties at Singapore Press Holdings Ltd (SPH). He has extensive project management experience and assumed major roles in the successful development of several prominent projects in Singapore, namely, the Paragon, Sky@Eleven condominium and most recently RWS. In Singapore Power Limited, Mr Chin oversees the development of 40 km of underground cable tunnels.

Mr Chin also serves on the board of Labrador Real Estate Pte. Ltd., Singapore District Cooling Pte Ltd and Land Transport Authority of Singapore. He also sits on on the management committee of Turf Club and the development committee of the Mandai Park Redevelopment Project.

Mr Chuah Kee Heng is the Managing Director of SP Services Limited. Mr Chuah's professional career began in a U.S. bank. After four years in banking, he joined Temasek Holdings (Private) Limited where he was involved in investments in various sectors. Before joining Singapore Power Limited, his last position in Temasek was Director, Portfolio Management.

Mr Chuah also sits on the boards of directors of several companies including SP PowerGrid Limited, SP Training Consultancy Company Pte. Ltd. and Singapore District Cooling Pte Ltd.

Mr Chuah holds a Bachelor's degree (First Class Honours) in Electronics Engineering from University College London. He also holds a Master's degree in Applied Finance from University of Adelaide and a Master of Business Administration degree from the Booth School of Business, University of Chicago.

Mr Goh Chee Kiong joined SP Group in end-2017 as the Head for Strategic Development, responsible for open innovation and developing new energy solutions in SP Group. The coverage includes renewables, storage, microgrids, energy management and electric mobility. Mr Goh currently sits on the boards of several companies of SP Group, namely, SP PowerAssets Limited, PowerGas Limited, Singapore District Cooling Pte Ltd, Power Automation Pte Ltd, SP Digital Holdings Pte. Ltd., SP One Pte. Ltd., SPComm Pte. Ltd., SP Mobility Pte. Ltd. and Shirui Energy. He is also on the advisory board of Singapore Envirotech Accelerator set up by SGX-listed firm CITIC Envirotech.

Prior to SP Group, Mr Goh served in the Singapore Economic Development Board (EDB) for two decades, during which he led the development of the cleantech, urban solutions and infrastructure sectors in Singapore. His last role in EDB was the Executive Director for Cleantech, Cities, Infrastructure and Industrial Solutions. He was awarded the Pubic Administration Medal (Bronze) in 2014 for his contributions to the Public Sector. Mr Goh holds a Bachelor's degree in a Chemical Engineering from the National University of Singapore under the EDB-Glaxo scholarship.

Mr Stanley Huang Tian Guan is the Chief Financial Officer of Singapore Power Limited. He is also the Chairman of PowerGas Limited and a director of a number of companies including SP PowerAssets Limited, SP Digital Holdings Pte. Ltd., SP Services Limited, Singapore Power International Pte Ltd and SGSP (Australia) Assets Pty Ltd. Mr Huang has over 20 years of experience in finance and management. Prior to his appointment as Chief Financial Officer of Singapore Power Limited, Mr Huang was the Global Chief Financial Officer of Volvo Construction Equipment. He started his career under a Public Service Commission Scholarship and spent the initial years of his career in various project and finance roles in different industries. He then joined Volvo Construction Equipment where he spent 12 years, initially as Chief Financial Officer of China and Asia, and then became the Global Chief Financial Officer. He was based at the Belgium headquarters of Volvo Construction Equipment from 2012 to 2015.

Mr Huang holds a master's degree in Business Administration from University of Leicester, UK and a Bachelor of Accountancy (2nd Upper Class Honours) degree from Nanyang Technological University, Singapore. He is a Chartered Accountant of Singapore. He is also an alumnus of INSEAD Business School and attended the Top Management Program and International Executive Program in 2010 and 2007 respectively.

Mr Jimmy Khoo Siew Kim is the Managing Director of Singapore District Cooling Pte Ltd and a director of SP PowerGrid Limited and SP Sustainability & Engineering Pte Ltd. Mr Khoo has ten years of experience in SP Group. Prior to joining Singapore District Cooling Pte Ltd and Singapore Power Limited, Mr Khoo had also previously held the position of Deputy Managing Director (Planning & Strategy) of SP PowerGrid Limited.

Mr Khoo holds a Master of Science in Management from the Leland Stanford Junior University and a Master of Arts (Politics, Philosophy and Economics) degree from Oxford University.

Ms Lim Chor Hoon is the Chief Talent Officer at Singapore Power Limited and is overall responsible for the Human Resource policies and programs for the leadership team of SP Group. Ms Lim has more than 25 years of experience in human resources and prior to joining Singapore Power Limited in 2010, she was with the NOL Group as Vice President, Talent Management and Global Learning and Development and Temasek Holdings (Private) Limited as Director, Human Resource. She had also worked in a number of companies including GuocoLand Limited, United Overseas Bank Group and the National University of Singapore.

Ms Lim is also a director of a number of companies including SP PowerAssets Limited, PowerGas Limited and SP Digital Holdings Pte. Ltd. She holds a Bachelor of Science in Psychology degree from the University of Wisconsin (Madison) and a Graduate Diploma in Personnel Management and has attended the International Program in HR Leadership at IMD International at Lausanne, Switzerland.

Mr Lim Howe Run is the Managing Director in Group CEO's Office and Head of Strategic Investments at Singapore Power Limited. Mr Lim manages SP Group's investment portfolio in Australia, identifies and executes merger and acquisition transactions as the opportunity arises, and assists with SP Group wide initiatives. Prior to his current appointment, he held various senior management positions within SP Group.

Mr Lim also serves on the boards of directors of several companies including SP PowerAssets Limited, PowerGas Limited and Singapore Power International Pte Ltd.

Mr Lim holds a Bachelor of Engineering (Mechanical) degree from the National University of Singapore.

Mr Ng Seng Huwi joined SP Group in March 2018 as Group Chief Human Resources Officer. He is responsible for developing and implementing HR strategy across the Group and providing leadership support to the businesses. Mr Ng has more than 35 years of professional experience, holding a variety of positions in management, engineering, operations and human resources in multi-national companies including Schlumberger, Unilever, Praxair and Globalfoundries. He has lived and worked in Asia, Australia and Europe in the course of his career. Prior to joining the Group, Mr Ng was the Group Chief Human Resources Officer

for American President Lines, a container shipping company with business operations in Asia, Europe, Middle East, South America and North America. Mr Ng holds a Bachelor of Engineering degree from the University of Aberdeen, Scotland and a Master of Business Administration from the University of Sheffield, England. Mr Ng also, serves on the board of SP Training and Consulting Company Pte. Ltd.

Mr Ong Teng Koon joined SP Group in 2016 as Managing Director in Group CEO's office and is currently the Head of Regulatory Management of Singapore Power Limited. He also sits on the Board of SP PowerAssets Limited and SP Telecommunications Pte Ltd. He spent more than a decade at Goldman Sachs and Morgan Stanley where he traded commodities in Chicago, London, Tokyo, Shanghai and Singapore.

Mr Ong was elected as a Member of Parliament in 2011 and re-elected in 2015. He serves as the Vice Chairman of Marsiling – Yew Tee Town council and currently sits on the Government Parliamentary Committees of the Ministry of Communications and Information and the Ministry of National Development.

Mr Ong graduated with a Masters in Finance from Princeton University and a Bachelor of Science in Economics with First Class Honours from the London School of Economics.

Mr Samuel Tan Seow Beng is the Chief Digital Officer at Singapore Power Limited and oversees the group wide delivery of Information and Communications Technology, Operational Technology and Digital Technology applications and services for SP Group. Mr Tan also oversees the operations of SP Group's Digital Business, which is "Reimagined Sustainability with EnergyTech". He also serves on the boards of directors of several companies including SP PowerAssets Limited, SP Services Limited and PowerGas Limited.

Mr Tan has more than 19 years of experience in information technology. Prior to joining Singapore Power Limited in 2015, he was with Asia Pacific GE Oil & Gas as Chief Information Officer. Mr Tan holds a Bachelor's degree in Electrical & Electronics Engineering from Nanyang Technological University.

Mr Wong Chit Sieng is the Chief Corporate Officer of Singapore Power Limited. He is concurrently the chairman of the board of directors of a number of companies including Trusted Source Pte Ltd and Deep Identity Pte Ltd, and a board member of several other companies including SP PowerAssets Limited, PowerGas Limited, SP Connect Pte. Ltd. and Singapore District Cooling Pte Ltd. Mr Wong has over 30 years' experience in strategic business IT planning and the development and management of banking and utilities application systems.

Prior to his appointment as Chief Corporate Officer of Singapore Power Limited, Mr Wong was Chief Information Officer, Singapore Power Limited and Managing Director, SP Services Limited. Before joining Singapore Power Limited, he held the post of Director of Operations and Principal Consultant of S1 Corporation Asia Pacific and Japan (a U.S. listed banking software company, "S1 Corporation"). Immediately prior to joining S1 Corporation, he was Senior Vice President of the Overseas Union Bank, Singapore for nine years. He had also served 10 years in the Chase Manhattan Bank N.A as Vice President in varied capacities (Regional Systems Development Audit Manager, System Development Manager for Singapore and Indonesia, and Project Director for the Chase Asia Regional Data Centre).

Mr Wong has a Bachelor of Business Administration degree with Distinction and a Master of Business Administration from the Royal Melbourne Institute of Technology, Australia. He also graduated from Harvard Business School's Advanced Management Program in 2009.

Mr Wong Kim Yin is a Director and the Group Chief Executive Officer of Singapore Power Limited. For a biography of Mr Wong, see " — Board of Directors".

DESCRIPTION OF THE ISSUER

The Issuer is a private company limited by shares under the laws of Singapore and was incorporated on March 27, 2018. The Issuer is a direct wholly-owned subsidiary of SP whose principal activities are that of investment holding and provision of management support services.

The registered office of the Issuer is 2 Kallang Sector, Singapore 349277.

As at the date of this Offering Circular, the issued and fully paid-up share capital of the Issuer is S$10,000 comprising 10,000 ordinary shares issued and held by SP.

The following table sets forth the name and position of each member of the Board of Directors of the Issuer:

Name	Position
Ng Kwan Meng	Chairman
Stanley Huang Tian Guan	Director
Lena Chia Yue Joo	Director
Pek Hock Soon	Director

CONTROLLING SHAREHOLDER

SP is wholly-owned by Temasek, an investment company headquartered in Singapore with a diversified investment portfolio. Temasek is wholly-owned by the Minister for Finance, a body corporate constituted under the Minister for Finance (Incorporation) Act, Chapter 183 of Singapore.

Control of Equity Interests

As highlighted in the sections "Industry and Regulation — Electricity Industry in Singapore — Powers of the EMA to Control Electricity Licensees" and "Industry and Regulation — Powers of the EMA to Control Gas Licensees", the Electricity Act and the Gas Act set out various provisions relating to the control of equity interests in designated Electricity Licensees (as defined in the Electricity Act) and designated Gas Licensees (as defined in the Gas Act). SPPA and SPPG have been designated as designated Electricity Licensees and PowerGas and SPPG have been designated as designated Gas Licensees. Accordingly, the provisions of the Electricity Act and Gas Act relating to the control of equity interests are applicable to SPPA, SPPG and PowerGas.

Electricity Act

Under Section 30D of the Electricity Act, where a person has acquired an equity interest in SPPA or SPPG and the EMA is satisfied that:

(i) that person whether through a series of transactions over a period of time or otherwise, become a 12% controller, 30% controller or indirect controller (each as defined in the Electricity Act) of SPPA or SPPG (as the case may be) without first obtaining the approval of the EMA;

(ii) any condition of approval imposed on that person under Section 30B of the Electricity Act has not been complied with;

(iii) that person has furnished false or misleading information or documents in connection with an application for the EMA's approval under Section 30B of the Electricity Act; or

(iv) the EMA would not have granted its approval under Section 30B of the Electricity Act had it been aware, at that time, of circumstances relevant to that person's application for such approval,

the EMA may (a) direct the transfer or disposal of all or any of the equity interest held by the person or any of his associates (as defined in the Electricity Act) (the "specified equity interest") within such time and subject to such conditions as the EMA considers appropriate, (b) restrict the transfer or disposal of the specified equity interest, or (c) make such other direction as the EMA considers appropriate.

Where the EMA has issued such direction to direct the transfer or disposal, or restrict the transfer or disposal, of the specified equity interest, notwithstanding the provisions of any other written law or anything contained in SPPA's constitution or SPPG's constitution (as the case may be):

(i) no voting rights shall be exercisable in respect of the specified equity interest unless the EMA expressly permits such rights to be exercised;

(ii) no equity interest shall be issued or offered (whether by way of rights, bonus or otherwise) in respect of the specified equity interest unless the EMA expressly permits such issue or offer; and

(iii) except in the winding up of SPPA or SPPG (as the case may be), no payment shall be made by SPPA or SPPG respectively (whether by way of dividends or otherwise) in respect of the specified equity interest unless the EMA expressly authorizes such payment,

until the transfer or disposal is effected in accordance with the direction or until the direction is revoked, as the case may be.

In view of the foregoing, the constitutions of SPPA and SPPG each currently restricts any person, whether alone or together with his associates, from holding an equity interest in SPPA or SPPG (as the case may be) or from being in a position to control voting power in SPPA or SPPG (as the case may be) which meets or is in excess of any of the Electricity Act Prescribed Limits, without first obtaining the approval of the EMA.

In addition, SPPA's or SPPG's Directors may, if it comes to their notice that any person or, as the case may be, any person who together with his associates, holds an equity interest in SPPA or SPPG (as the case may be) or is in a position to control voting power in SPPA or SPPG (as the case may be) which meets or is in excess of any of the Electricity Act Prescribed Limits, without first obtaining the approval of the EMA:

(i) require such person or persons or the holder or holders of the equity interest concerned (as the case may be) to transfer or dispose of all or any part thereof within such time and subject to such conditions as the EMA considers appropriate; and/or

(ii) pending the aforesaid disposal, suspend the voting rights of the equity interest concerned held by such person or persons or the holder or holders thereof (as the case may be); and/or

(iii) restrict the transfer or disposal of the equity interest concerned held by such person or persons or the holder or holders thereof (as the case may be) as the EMA considers appropriate.

Gas Act

Under Section 63E of the Gas Act, where a person is a 12% controller, 30% controller or indirect controller (each as defined in the Gas Act) of PowerGas or SPPG and the EMA is satisfied that:

(i) that person has become a 12% controller, 30% controller or indirect controller of PowerGas or SPPG (as the case may be) without first obtaining the approval of the EMA;

(ii) (a) the person is not or ceases to be a fit and proper person, (b) having regard to the person's likely influence, PowerGas or SPPG (as the case may be) is not, or is no longer, likely to conduct its business prudently or to comply with the provisions of the Gas Act, or (c) it is not, or is no longer in the public interest to allow the person to continue to be a 12% controller, 30% controller or indirect controller (as the case may be);

(iii) any condition of approval imposed on that person under Section 63C of the Gas Act has not been complied with;

(iv) that person has furnished false or misleading information or documents in connection with an application for the EMA's approval under Section 63B(2) of the Gas Act; or

(v) the EMA would not have granted its approval under Section 63B(2) of the Gas Act had it been aware, at that time, of circumstances relevant to that person's application for such approval,

the EMA may (a) direct the person to take such steps as are necessary, within such period as may be specified by the EMA, to ensure that he ceases to be a 12% controller, a 30% controller or an indirect controller of PowerGas or SPPG (as the case may be); (b) direct the person or any of his associates (as defined in the Gas Act) to transfer or dispose of all or any of the equity interest held by the person or any of his associates (the "specified equity interest") within such time and subject to such conditions as the EMA considers appropriate, (c) restrict the transfer or disposal of the specified equity interest, or (d) make such other direction as the EMA considers appropriate.

Where the EMA has issued such direction to direct the transfer or disposal, or restrict the transfer or disposal, of the specified equity interest, notwithstanding the provisions of any other written law or anything contained in PowerGas' constitution or SPPG's constitution (as the case may be):

(i) no voting rights shall be exercisable in respect of the specified equity interest unless the EMA expressly permits such rights to be exercised;

(ii) no equity interest shall be issued or offered (whether by way of rights, bonus or otherwise) in respect of the specified equity interest unless the EMA expressly permits such issue or offer; and

(iii) except in the winding up of PowerGas or SPPG (as the case may be), no payment shall be made by PowerGas or SPPG respectively (whether by way of dividends or otherwise) in respect of the specified equity interest unless the EMA expressly authorizes such payment,

until the transfer or disposal is effected in accordance with the direction or until the direction is revoked, as the case may be.

In view of the foregoing, PowerGas' constitution currently restricts any person, whether alone or together with his associates, from holding an equity interest in PowerGas or from being in a position to control voting power in PowerGas which meets or is in excess of any of the Gas Act Prescribed Limits without first obtaining the approval of, or an exemption from the requirement to obtain approval from, the EMA. SPPG's constitution currently restricts any person, whether alone or together with his associates, from holding an equity interest in SPPG or from being in a position to control voting power in SPPG which meets or is in excess of any of the Gas Act Prescribed Limits, without first obtaining the approval of the EMA.

In addition, PowerGas' Directors may, if it comes to their notice that any person or, as the case may be, any person who together with his associates, holds an equity interest in PowerGas or is in a position to control voting power in PowerGas which meets or is in excess of any of the Gas Act Prescribed Limits or is an indirect controller (as defined in the Gas Act), without first having obtained the approval of, or an exemption from the requirement to obtain such approval from, the EMA:

(i) require such person or persons or the holder or holders of the equity interest concerned (as the case may be) to take such steps as are necessary, within such period as may be specified by the EMA, to ensure that he, whether alone or together with his associates, ceases to hold an equity interest or be in a position to control voting power in PowerGas, which meets or exceeds any of the Gas Act Prescribed Limits, or ceases to be an indirect controller (as defined in the Gas Act) of PowerGas; and/or

(ii) require such person or persons or the holder or holders of the equity interest concerned or any of his associates (as the case may be) to transfer or dispose of all or any part of the equity interest held by him/them (the "Affected Shares") within such time and subject to such conditions as the EMA considers appropriate; and/or

(iii) restrict the transfer or disposal of the equity interest concerned held by such person or persons or the holder or holders thereof (as the case may be).

Where PowerGas' Directors reasonably determine that such action is required pursuant to the Gas Act, PowerGas Directors may provide that:

(a) no voting rights shall be exercisable in respect of the Affected Shares unless the EMA expressly permits such rights to be exercised;

(b) no equity interests in PowerGas shall be issued or offered (whether by way of rights, bonus or otherwise) in respect of the Affected Shares unless the EMA expressly permits such issue or offer;

(c) except in a winding-up of PowerGas, no payment shall be made by PowerGas of any amount (whether by way of dividends or otherwise) in respect of the Affected Shares unless the EMA expressly authorises such payment,

until the transfer or disposal is effect in accordance with the direction or until the restriction on the transfer or disposal is removed, as the case may be.

In addition, SPPG's Directors may, if it comes to their notice that any person or, as the case may be, any person who together with his associates, holds an equity interest in SPPG or is in a position to control voting power in SPPG which meets or is in excess of any of the Gas Act Prescribed Limits, without first obtaining the approval of the EMA:

(i) require such person or persons or the holder or holders of the equity interest concerned (as the case may be) to transfer or dispose of all or any part thereof within such time and subject to such conditions as the EMA considers appropriate; and/or

(ii) pending the aforesaid disposal, suspend the voting rights of the equity interest concerned held by such person or persons or the holder or holders thereof (as the case may be); and/or

(iii) restrict the transfer or disposal of the equity interest concerned held by such person or persons or the holder or holders thereof (as the case may be) as the EMA considers appropriate.

DESCRIPTION OF THE NOTES

General

The particular terms of any Notes sold will be described in an accompanying supplement to this Offering Circular (a "Pricing Supplement"). The terms and conditions set forth in "Description of the Notes" below will apply to each Note unless otherwise specified in the applicable Pricing Supplement and in such Note.

Notes governed under the laws of the State of New York shall be issued under an indenture dated as of October 25, 2018 (as amended, supplemented or otherwise modified and in effect from time to time, the "Indenture") between the Company, the Guarantor and The Bank of New York Mellon, as Trustee. Notes governed under the laws of Singapore shall be issued under a supplemental trust deed dated as of October 25, 2018 (as amended, supplemented or otherwise modified and in effect from time to time, the "Supplemental Trust Deed") between the Company, the Guarantor and The Bank of New York Mellon, as Trustee, which is supplemental to the Indenture. References to the "Indenture" shall, where applicable, include references to the "Supplemental Trust Deed".

The following summary of certain provisions of the Indenture does not purport to be complete and is subject to, and is qualified in its entirety by reference to, all the provisions of the Indenture, including the definitions therein of certain terms. Wherever particular Sections or defined terms of the Indenture are referred to, such Sections or defined terms shall be deemed to be incorporated herein by reference. Capitalized terms used in this "Description of the Notes" that are not otherwise defined shall have the same meaning given to such terms as in the Indenture.

The Notes are direct, unsecured and unsubordinated obligations of the Company. The Notes will rank *pari passu* among themselves and at least *pari passu* with all other present and future unsecured and unsubordinated obligations of the Company, other than with respect to obligations preferred by statute or operation of law.

The Indenture provides that the Notes may be issued in one or more series thereunder (Indenture § 301). All Notes of one issuance need not be issued at the same time and, unless otherwise provided, an issuance may be reopened under the Indenture, without the consent of any holder, for issuances of additional Notes which will be consolidated and form one series with the Notes of the previous issuance; provided that, in the case of Bearer Notes that are issued under TEFRA D and are initially represented by interests in a Temporary Global Note exchangeable for interests in a Permanent Global Note or definitive Bearer Notes, such consolidation will occur only upon certification of non-U.S. beneficial ownership and exchange of interests in the Temporary Global Note for interests in the Permanent Global Note or definitive Bearer Notes; and provided further that in the case of Registered Notes issued pursuant to Rule 144A, any such additional Notes shall be designated by a separate CUSIP or other identifying number unless such additional Notes are fungible with the other Notes of the relevant series for U.S. federal income tax purposes (Indenture § 301). Each series of Notes shall mature on such dates, bear interest at such rates and have such other terms and provisions not inconsistent with the Indenture as the Company may determine.

The Notes offered hereby are limited to an aggregate principal amount (or, in the case of Notes issued at a discount from their principal amount, Notes that may be paid in two or more installments or Indexed Notes, the aggregate initial offering price) at any time outstanding of up to S$10,000,000,000 or, in the case of Notes denominated in a currency other than Singapore dollars ("Foreign Currency Notes"), the approximate equivalent thereof at the Program Exchange Rate of such foreign currencies on the date the Company agreed to issue such Notes. The maximum amount that may be issued under the Program may be increased pursuant to the terms of the Program. Unless otherwise specified in the applicable Pricing Supplement, each Note will mature on a date three months or more from its date of original issuance (the "Original Issue Date"), as selected by the relevant Dealer and agreed to by the Company.

The Notes will be issuable only in fully registered or bearer form and in such Specified Denominations and integral multiples as specified in the relevant Pricing Supplement. Notes sold pursuant to Rule 144A under the Securities Act will be in denominations of U.S.$200,000 (in the case of Notes not denominated in U.S. dollars, the equivalent thereof in such foreign currency or composite currency, rounded down to the nearest 1,000 units of such foreign currency or composite currency). In addition, Notes sold pursuant to Section 4(a)(2) of the Securities Act or in a transaction otherwise exempt from registration under the Securities Act shall be in denominations of U.S.$250,000 (or in the case of Notes not denominated in U.S. dollars, the equivalent thereof in such foreign currency or composite currency, rounded down to the nearest 1,000 units of such foreign currency or composite currency). Notes which are admitted to trading on a regulated market within the European Economic Area or offered to the public in a Member State of the European Economic Area in circumstances which require the publication of a prospectus under the Prospectus Directive, the minimum Specified Denomination shall be €100,000 (or its equivalent in any other currency as of the date of issue of the relevant Notes). Notes denominated in Singapore dollars will have a minimum denomination of S$200,000.

The Notes may be issued as Original Issue Discount Notes. An Original Issue Discount Note is a Note, including any Note that does not provide for the payment of interest prior to Maturity, which is issued at a price lower than the principal amount thereof and which provides that upon redemption or acceleration of the Stated Maturity thereof, the amount payable to the holder of such Note will be determined in accordance with the terms of the Note, but will be an amount less than the amount payable at the Stated Maturity of such Note. Original Issue Discount Notes (and certain other Notes) may be treated as issued with original issue discount for U.S. federal income tax purposes.

Notes denominated in a currency other than Singapore dollars will be redeemable, at the option of the Company, prior to their Stated Maturity in the event that the Company is obliged to pay any of the additional amounts described in " — Payments of Additional Amounts" as a result of a change in law. In addition, the applicable Pricing Supplement will indicate either that a Note cannot otherwise be redeemed prior to its Stated Maturity or that a Note will be redeemable at the option of the Company on or after a specified date prior to its Stated Maturity at a specified price or prices (which may include a premium), together with accrued interest to the date of redemption. The applicable Pricing Supplement will also indicate either that the Company will not be obligated to redeem a Note at the option of the holder thereof or that the Company will be so obligated. If the Company will be so obligated, the applicable Pricing Supplement will indicate the period or periods within which (or, if applicable, the event or events upon the occurrence of which) and the price or prices at which the applicable Notes will be redeemed, in whole or in part, pursuant to such obligation and the other detailed terms and provisions of such obligation.

Unless otherwise provided in the Pricing Supplement, the Company shall have the option to purchase all or any of the Variable Rate Notes at their Redemption Price on any date on which interest is due to be paid on such Notes and the Holders of such Notes shall be bound to sell such Notes to the Company accordingly. To exercise such option, the Company shall give irrevocable notice to the Holders of such Notes within the Issuer's Purchase Option Period specified in the applicable Pricing Supplement. Such Notes may be held, resold or surrendered to the Trustee for cancellation. The Notes so purchased, while held by or on behalf of the Company, shall not entitle the holder to vote at any meetings of the Holders and shall not be deemed to be outstanding for the purposes of calculating quorums at meetings of the Holders or for the purposes of §§ 501 to 515 and 1401 of the Indenture.

In the case of a purchase of only some of the Variable Rate Notes, the notice to Noteholders shall also contain the certificate numbers of such Notes to be purchased, which shall have been drawn by or on behalf of the Company in such place and in such manner as may be agreed between the Company and the Trustee, subject to compliance with any applicable laws. So long as the Variable Rate Notes are listed on the SGX-ST, the Company shall comply with the rules of the SGX-ST in relation to the publication of any purchase of Variable Rate Notes.

If so provided in the Pricing Supplement, each Holder shall have the option to have all or any of his Variable Rate Notes purchased by the Company at their Redemption Price on any Interest Payment Date and the Company will purchase such Variable Rate Notes accordingly. To exercise such option, a Holder shall deposit any Variable Rate Notes to be purchased with the relevant Issuing and Paying Agent at its specified office together with all Coupons (if applicable) relating to such Variable Rate Notes which mature after the date fixed for purchase, together with a duly completed option exercise notice in the form obtainable from the relevant Issuing and Paying Agent within the Holders' VRN Purchase Option Period specified in the applicable Pricing Supplement. Any Variable Rate Notes so deposited may not be withdrawn without the prior consent of the Company. Such Variable Rate Notes may be held, resold or surrendered to the Trustee for cancellation. The Variable Rate Notes so purchased, while held by or on behalf of the Company, shall not entitle the holder to vote at any meetings of the Holders and shall not be deemed to be outstanding for the purposes of calculating quorums at meetings of the Holders or for the purposes of §§ 501 to 515 and 1401 of the Indenture. For as long as Bearer Notes issued in accordance with TEFRA D are represented by a Temporary Global Note, such an option shall not be available unless the certification required under TEFRA D with respect to non-U.S. beneficial ownership has been received by the Company or the Issuing and Paying Agent.

Except as ordered by a court of competent jurisdiction or as required by law, the Company, the Guarantor, the Trustee and any agent of the Company, the Guarantor or the Trustee may (a) for the purpose of making payment thereon or on account thereof deem and treat the bearer of any Bearer Global Note, Definitive Bearer Note, Receipt, Coupon or Talon and the registered holder of any Registered Global Note or Definitive Registered Note as the absolute owner thereof and of all rights thereunder free from all encumbrances, and shall not be required to obtain proof of such ownership or as to the identity of the bearer of any Bearer Global Note, Definitive Bearer Note, Receipt, Coupon or Talon or of the registered holder of any Registered Global Note or Definitive Registered Note, and (b) for all other purposes deem and treat:

(i) the bearer of any Definitive Bearer Note, Receipt, Coupon or Talon and the registered holder of any Definitive Registered Note; and

(ii) each person for the time being shown in the records of any of the Clearing Systems, or such other additional or alternative clearing system approved by the Company, the Guarantor (as applicable) and the Trustee, as having a particular principal amount of Notes credited to his securities account,

as the absolute owner thereof free from all encumbrances and shall not be required to obtain proof of such ownership (other than, in the case of any Person for the time being so shown in such records of any Clearing Systems, a certificate or letter of confirmation signed on behalf of the relevant Clearing System or any other form of record made by any of them) or as to the identity of the bearer of any Bearer Global Note, Definitive Bearer Note, Receipt, Coupon or Talon or of the registered holder of any Registered Global Note or Definitive Registered Note (Indenture § 308).

Unless otherwise specified in the applicable Pricing Supplement, the Notes will not be subject to any sinking fund or analogous provisions.

Guarantee

The Guarantor will fully, unconditionally and irrevocably guarantee to each Noteholder the due payment of all amounts owing from time to time under the Notes, including, without limitation, the Redemption Amount, interest and Additional Amounts.

Unless otherwise stated in the applicable Pricing Supplement, the Guarantee of the Notes will constitute a direct, unconditional, unsecured and unsubordinated obligation of the Guarantor and will rank at least *pari passu* with all existing and future unsecured and unsubordinated obligations of the Guarantor (other than with respect to obligations which may be preferred by law or rank senior by operation of law) and senior to all existing and future subordinated obligations of the Guarantor.

The Guarantor has agreed that its obligations under the Guarantee will be as if it were principal obligor and not merely surety. Accordingly, it shall not be discharged, nor shall its liability be affected, by anything that would not discharge it or affect its liability if it were the sole principal debtor (including (1) any time, indulgence, waiver or consent at any time given to the Company or any other person, (2) any amendment to any other provisions of the Indenture or to the Notes or to any security or other guarantee or indemnity, (3) the taking, existence or release of any security, guarantee or indemnity, (4) the dissolution, amalgamation, reconstruction or reorganisation of the Company or any other person or (5) the illegality, invalidity or unenforceability of or any defect in any provision of the Notes or the Indenture or any of the Company's obligations under any of them). The Guarantor has waived its right to require the Trustee to pursue or exhaust its legal or equitable remedies against the Company prior to exercising its rights under the Guarantee.

The Guarantor is a holding company, and its obligations under the Guarantee will be structurally subordinated to all liabilities of its subsidiaries.

Procedures for the Payment of Principal and Interest

Procedures for the payment of principal and interest on the Notes will vary depending on whether such Note is a Registered Note or a Bearer Note.

Registered Notes

Payment of the principal of and any premium or interest on Registered Notes will be made to the registered holders thereof at the specified office of the relevant Issuing and Paying Agents in the currency or currency unit specified on the face of the Registered Note; provided, that if the Registered Note is a Registered Global Note, payments shall be made to the account designated by the Depositary. Notwithstanding the foregoing, a registered holder of U.S.$10,000,000 (or its foreign currency equivalent) or more in aggregate principal amount of such Registered Notes having the same Interest Payment Date will be entitled to receive payments of interest, other than interest due at Maturity, by wire transfer of immediately available funds to an account at a bank if appropriate wire transfer instructions have been received by the Issuing and Paying Agent or any other issuing and paying agent in writing not less than 15 calendar days prior to the applicable Interest Payment Date (Indenture § 311).

Interest on any Registered Note which is payable, and is punctually paid or duly provided for, on any Interest Payment Date shall be paid to the Person in whose name that Registered Note (or one or more Predecessor Notes) is registered at the close of business on the Regular Record Date for such interest next preceding each Interest Payment Date; provided, however, that interest payable at Maturity will be payable to the Person to whom principal shall be payable. The first payment of interest on any interest-bearing Registered Note originally issued between a Regular Record Date and an Interest Payment Date will be made on the second Interest Payment Date following the Original Issue Date of such Registered Note to the registered owner on the Regular Record Date immediately preceding such second Interest Payment Date (Indenture §307).

Bearer Notes

Payments of principal and interest on Bearer Global Notes will be made in a manner specified in the relevant Bearer Global Notes against presentation or surrender, as the case may be, of such Bearer Global Note at the specified office of the relevant Issuing and Paying Agent outside of the United States. A record of each payment of principal and any payment of interest will be made on each relevant Bearer Global Note by the relevant Issuing and Paying Agent and such record will be *prima facie* evidence that the payment in question has been made, absent manifest error.

Payments of principal and interest on Definitive Bearer Notes will be made against presentation or surrender, as the case may be, of such Definitive Bearer Note at the specified office of the relevant Issuing and Paying Agent outside of the United States. Payments of interest in respect of Definitive Bearer Notes will be made only against surrender of Coupons and payments of principal will be made only against surrender of Receipts, in each, at the office of the relevant Issuing and Paying Agent outside of the United States.

Notwithstanding the foregoing, if payments of interest and/or principal on a Bearer Global Note or a Definitive Bearer Note will be made in U.S. dollars, then such payments may be made in the United States if:

(a) the Company has appointed Issuing and Paying Agents with specified offices outside the United States with the reasonable expectation that such Issuing and Paying Agents would be able to make payment in U.S. dollars at such specified offices outside the United States of the full amount of principal and interest on the Bearer Notes in the manner provided above when due;

(b) payment of the full amount of such principal and interest at all such specified offices outside the United States is illegal or effectively precluded by exchange controls or other similar restrictions on the full payment or receipt of principal and interest in U.S. dollars; and

(c) such payment is then permitted under United States law without involving, in the opinion of the Company, adverse tax consequences to the Company (Indenture § 309).

In the case of Bearer Notes issued under TEFRA D, payments of both principal and interest in respect of a Temporary Bearer Global Note will only be made if certification of non-U.S. beneficial ownership as required under TEFRA D has been received from a Clearing System by the relevant Issuing and Paying Agent.

Subject to the restrictions on resale set forth in "Notice to Purchasers and Holders of Registered Global Notes and Transfer Restrictions" of this Offering Circular, the Notes may be presented for registration of transfer or exchange at the specified office of the relevant Issuing and Paying Agent. No service charge will be made for any transfer or exchange of such Notes, but the Company or the Guarantor (as applicable) may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith (Indenture § 305).

Events of Default

The Indenture provides that, if any Event of Default (other than an Event of Default specified in paragraphs (e) and (f) below) with respect to Notes of any series at the time Outstanding occurs and is continuing, either the Trustee or the Holders of not less than 25.0% in principal amount of the outstanding Notes of that series may, and the Trustee at the request of such Act of Holders of not less than 25% in principal amount of the Outstanding Notes of such series (subject to being indemnified and/or secured and/or pre-funded to its satisfaction) shall, by notice as provided in the Indenture, declare the principal amount (or, if the Notes of that series are Original Issue Discount Notes, such portion of the principal amount as may be specified in the applicable Pricing Supplement) of all of the Notes of that series to be due and payable immediately and upon such declaration such principal amount (or specified amount) shall become immediately due and payable (Indenture § 502). If an Event of Default specified in paragraphs (e) and (f) below with respect to Notes of any series at the time Outstanding occurs, then the principal amount (or, if the Notes of that series are Original Issue Discount Notes, such portion of the principal amount as may be specified in the applicable Pricing Supplement) of all of the Notes of that series shall, without any act by the Trustee or the Holders of such Notes, become immediately due and payable without presentment, demand, protest or other notice of any kind. Upon certain conditions at any time after such acceleration or declaration has been made and before a judgment or decree for payment of the money due has been obtained by the Trustee under the Indenture, the Act of Holders of 75.0% in principal amount of the outstanding Notes of that series, by written notice to the Company or the Guarantor (as applicable), and the Trustee, may rescind and annul such acceleration or declaration of acceleration and its consequences on behalf of the holders of all Notes of that series (Indenture § 502).

Unless otherwise provided in the applicable Pricing Supplement, each of the following shall be an Event of Default with respect to the Notes of any series (Indenture § 501):

(a) failure to pay any interest on any Note when due and payable, and continuance of such default for a period of 14 days;

(b) failure to pay principal of (and premium, if any, on) or the Redemption Price of any Note when due and payable, and continuance of such default for a period of seven days;

(c) failure to make any sinking fund payment (if any) in respect of any Note when due or beyond any period of grace provided with respect thereto;

(d) failure by the Company or the Guarantor to perform any other covenant or warranty of the Company or the Guarantor (other than a covenant expressly included in the Indenture solely for the benefit of one or more series of Notes other than such series of Notes), continued for 30 days after written notice by the Trustee or the Holders of at least 25.0% in principal amount of the outstanding Notes of that series;

(e) (i) the entry by a court having jurisdiction in the premises of a decree or order for relief in respect of the Company, the Guarantor or any Principal Subsidiary in any voluntary case or proceeding under any applicable bankruptcy, insolvency, reorganization, winding up (other than a reorganization or winding up under or in connection with a scheme of arrangement, amalgamation or reconstruction not involving bankruptcy or insolvency), sequestration or other similar law or (ii) the entry by a court having jurisdiction in the premises of a decree or order adjudging the Company, the Guarantor or any Principal Subsidiary a bankrupt or insolvent, or approving as properly filed a petition seeking reorganization, arrangement, adjustment or composition of or in respect of the Company, the Guarantor or any Principal Subsidiary under any applicable law (other than any reorganization, arrangement, adjustment or composition for the purposes of amalgamation or reconstruction while solvent) or appointing a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company, the Guarantor or any Principal Subsidiary or any substantial part of the property of the Company, the Guarantor or such Principal Subsidiary (having an aggregate book value in excess of S$100,000,000) or ordering the winding up or liquidation of the affairs of the Company, the Guarantor or any Principal Subsidiary (other than a reorganization, winding up or liquidation under or in connection with a scheme of arrangement, amalgamation or reconstruction not involving bankruptcy or insolvency), and any such decree or order for relief or any such other decree or order shall continue unstayed and in effect for a period of 60 consecutive days;

(f) commencement by the Company, the Guarantor or any Principal Subsidiary of a voluntary case or proceeding under any applicable bankruptcy, insolvency, reorganization (other than a reorganization, winding up or liquidation under or in connection with a scheme of arrangement, amalgamation or reconstruction not involving bankruptcy or insolvency) or other similar law or any other case or proceeding to be adjudicated a bankrupt or insolvent, or the consent by the Company, the Guarantor or any Principal Subsidiary to the entry of a decree or order for relief in respect of the Company, the Guarantor or such Principal Subsidiary in an involuntary case or proceeding under any applicable bankruptcy, insolvency, reorganization (other than a reorganization, winding up or liquidation under or in connection with a scheme of arrangement, amalgamation or reconstruction not involving bankruptcy or insolvency) or other similar law or to the commencement of any bankruptcy or insolvency case or proceeding against the Company, the Guarantor or any Principal Subsidiary or the filing by the Company, the Guarantor or any Principal Subsidiary of a petition or answer or consent seeking reorganization (other than a reorganization, winding up or liquidation under or in connection with a scheme of arrangement, amalgamation or reconstruction not involving bankruptcy or insolvency) or relief under any such applicable law, or the consent by the Company, the Guarantor or any Principal Subsidiary to the filing of such petition or to the appointment or the taking possession by a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company, the Guarantor or any Principal Subsidiary or of any substantial part of its respective property (having an aggregate book value in excess of S$100,000,000), or the making by the Company, the Guarantor or any Principal Subsidiary of an assignment for the benefit of creditors, or the taking of action by the Company, the Guarantor or any Principal Subsidiary in furtherance of any such action;

(g) the failure by the Company, the Guarantor or any Principal Subsidiary to pay when due and payable, after the expiration of any applicable grace period, any portion of the principal of, or involuntary acceleration of the maturity of, indebtedness for borrowed money of or guaranteed by the Company, the Guarantor or any Principal Subsidiary having an aggregate principal amount outstanding in excess of S$100,000,000 (or its equivalent in another currency);

(h) the Guarantee shall cease to be in full force or effect or the Guarantor shall deny or disaffirm in writing its obligations under the Guarantee; or

(i) any other event provided for with respect to Notes of such series as specified in the relevant Pricing Supplement.

The Holders of not less than a majority in aggregate principal amount of outstanding Notes of a series may waive any past default with respect to such Notes, except a default in the payment of principal, premium or interest or in respect of other provisions requiring the consent of the Holder of each Note of such series (Indenture § 513).

Subject to the provisions of the Indenture relating to the duties of the Trustee, in case of an Event of Default, the Trustee will be under no obligation to any of the Holders of Notes of such series unless such Holders shall have offered to the Trustee security and/or indemnity and/or pre-funding satisfactory to it (Indenture § 603). Subject to such provisions for the indemnification of the Trustee, the Holders of a majority in aggregate principal amount of the outstanding Notes of such series shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power conferred on the Trustee (Indenture § 512).

The Indenture provides that the Trustee will, within 90 days after the occurrence of any default with respect to the Notes of any series, give to the Holders of Notes of such series notice of such default known to it, unless such default shall have been cured or waived; provided that, except in the case of a default in the payment of principal of or premium or interest on or any sinking fund installment with respect to the Notes of such series, the Trustee shall be protected in withholding such notice if it determines that the withholding of such notice is in the interest of such Holders (Indenture § 602).

The Company is required to furnish to the Trustee annually a statement as to performance or fulfillment of its obligations under the Indenture and as to the absence of default or specifying any such default (Indenture § 1005).

Payments of Additional Amounts

Pursuant to the Indenture, the Company and the Guarantor will agree duly and punctually to pay the principal of and premium and interest, if any, on the Notes and Coupons and any payments under the Guarantee when and as the same shall become due and payable, whether at Stated Maturity, upon acceleration, or by call for redemption. The Company and the Guarantor will agree that any amounts to be paid by it under the Indenture, Notes and Coupons and the Guarantee denominated in currencies other than Singapore dollars will be paid without deduction or withholding for any and all present and future taxes, levies, imposts or other governmental charges whatsoever imposed, assessed, levied or collected by or for the account of the Republic of Singapore and, if different, the jurisdiction of organization or formation of the Company or the Guarantor (as applicable), or any political subdivision or taxing authority thereof or therein (as such jurisdiction may be changed from time to time pursuant to the terms of the Indenture) (the "Relevant Taxing Jurisdiction"), or if deduction or withholding of any such taxes, levies, imposts or other governmental charges shall at any time be required by the Relevant Taxing Jurisdiction, the Company and the Guarantor (as applicable) shall pay such additional amounts in respect of any such principal, premium, interest and sinking fund payment (as applicable) or any payment under the Guarantee as may be necessary in order that the net amounts paid to the Holders of such Notes and Coupons or to the Trustee or any Issuing and Paying Agent, as the case may be, pursuant to the Indenture, such Notes and Coupons and the Guarantee after such deduction or withholding shall equal the respective amounts of principal, premium, interest, and sinking fund payment as specified in such Notes and Coupons, to which the Holders thereof or the Trustee would be entitled if no such deduction or withholding had been made; provided that the foregoing shall not apply to any such tax, levy, impost or other governmental charge (1) which would not be payable or due but for the fact that the beneficial owner or the Holder of such Notes (or a fiduciary, settlor, beneficiary, partner of, member or shareholder of, or possessor of a power over such beneficial owner or Holder if the relevant beneficial owner or Holder is an estate, trust, nominee, partnership, limited liability company or corporation) is a domiciliary, national or resident of, or engaging in business (whether through a branch, agency or otherwise) or maintaining a permanent establishment or being physically present in, the Relevant Taxing Jurisdiction or otherwise having some present or former connection with the Relevant Taxing Jurisdiction other than a connection arising from the holding or ownership of a Note, or receiving income therefrom, or the enforcement of a Note, (2) which would not be payable or due but for the fact that, where presentation is required, such Note was presented more than 30 days after the date such payment became due or was provided for, whichever is later, except to the extent that the Holder thereof would have been entitled to additional amounts on presenting the same for payment on or before the expiration of 30 days, (3) which would not be payable or due but for the failure to

comply (following a request on reasonable notice from the Company) with any certification, identification or other reporting requirements concerning the nationality, residence, identity or connection with the Relevant Taxing Jurisdiction of the Holder or beneficial owner of such Note, if compliance is possible pursuant to the provisions of any statute or regulation or by any practice of the Relevant Taxing Jurisdiction as a condition to or requirement of relief or exemption from such tax, levy, impost or other governmental charge, (4) which would not be payable or due but for the fact that the Note was presented, where presentation is permitted or required, by a Holder who would be able to avoid such withholding or deduction by presenting the Note to another Issuing and Paying Agent, (5) that is imposed in respect of any estate, inheritance, gift, sales, transfer, personal property or similar taxes, (6) which are payable other than by deduction or withholding from payments under, or with respect to, such Note or Guarantee or (7) which would not have been so imposed if the beneficial owner of such Note had been the Holder of such Note or which, if the beneficial owner of such Note had been the Holder of such Note, would have been excluded pursuant to clauses (1) through (6) inclusive above.

In addition, any amounts to be paid on the Notes will be paid net of any deduction or withholding imposed or required pursuant to Sections 1471 through 1474 of the Internal Revenue Code, any current or future regulations or official interpretation thereof, any agreement entered into pursuant to Section 1471(b) of the Internal Revenue Code, or any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such Sections of the Internal Revenue Code, and no additional amounts will be required to be paid on account of any such deduction or withholding.

In relation to Notes and Coupons denominated in Singapore dollars, the Company and the Guarantor (as applicable) are not required to pay any additional amounts in respect of any and all present and future taxes, levies, imposts or other governmental charges whatsoever imposed, assessed, levied or collected by or for the account of the Relevant Taxing Jurisdiction (Indenture § 1001).

Interest

Unless otherwise indicated in the applicable Pricing Supplement, interest-bearing Notes will bear interest at either (a) a fixed rate (a "Fixed Rate Note"), (b) a floating rate determined by reference to an interest rate formula (a "Floating Rate Note"), which may be adjusted by adding or subtracting the Spread and/or multiplying by the Spread Multiplier or (c) a variable rate (a "Variable Rate Note"). Each interest-bearing Note will bear interest from and including its Original Issue Date or from and including the most recent Interest Payment Date (or, in the case of a Floating Rate Note with daily or weekly Interest Reset Dates, the day following the Regular Record Date immediately preceding such Interest Payment Date) with respect to which interest on such Note (or any predecessor Note) has been paid or duly provided for at the fixed rate per annum, or at the rate per annum determined pursuant to the interest rate formula, stated therein and in the applicable Pricing Supplement until the principal thereof is paid or made available for payment.

Interest rates, or interest rate formulae, are subject to change by the Company or the Guarantor (as applicable) from time to time, but no such change will affect any Note already issued or as to which an offer to purchase has been accepted by the Company or the Guarantor (as applicable).

Fixed Rate Notes

The applicable Pricing Supplement relating to a Fixed Rate Note will designate a fixed rate of interest per annum payable on such Note. Unless otherwise indicated in the applicable Pricing Supplement, (1) the Interest Payment Date(s) with respect to Fixed Rate Notes shall be either annually or semiannually and (2) the Regular Record Date(s) for Fixed Rate Notes shall be, in relation to Notes cleared through CDP or DTC, the date that is 15 calendar days prior to each Interest Payment Date, whether or not such date is a Business Day, and, in relation to Notes cleared through Euroclear or Clearstream, on the Clearing System Business Day before the due date for such payments, where "Clearing System Business Day" means a weekday (Monday to Friday, inclusive) except 25 December and 1 January. Unless otherwise indicated in the applicable Pricing Supplement, interest payments for Fixed Rate Notes shall be the amount of interest accrued from and including (1) the Original Issue Date or (2) the most recent Interest Payment Date to which interest has been paid or duly provided for, as the case may be, to but excluding the relevant Interest Payment Date and

interest on such Notes will be computed on the basis of the Day Count Faction specified in the applicable Pricing Supplement or, if no Day Count Fraction is specified, on the basis of a 360-day year of twelve 30-day months and, in the case of an incomplete month, the actual number of days elapsed, and in the case of Notes denominated in Singapore dollars, on the basis of a 365-day year and the actual number of days elapsed.

In any case where any Interest Payment Date, redemption date or Stated Maturity of any Fixed Rate Note is not a Business Day at any place of payment, then payment of principal of or any premium or interest on such Note need not be made at such place of payment on such date, but may be made on the next succeeding Business Day at such place of payment with the same force and effect as if made on the Interest Payment Date, redemption date or at the Stated Maturity, provided that no interest shall accrue for the period from and after such Interest Payment Date, redemption date or Stated Maturity, as the case may be.

"Business Day" means a day (a) on which commercial banks in the financial centre for the country of the Specified Currency are open to settle foreign exchange market payments in such Specified Currency, and (b)(i) in relation to payments due (other than in euro) upon presentation and/or surrender of any Notes in a series, on which commercial banks are open and foreign exchange markets settle payments in the Specified Currency in the place of presentation and/or surrender of such Notes, (ii) in relation to payments in euro upon presentation and/or surrender of any Note in a series, on which the Trans-European Automated Real-Time Gross Settlement Express Transfer ("**TARGET**") System is open and (iii) in relation to any global notes, on which Euroclear, Clearstream, CDP or DTC (*provided* that the Notes represented by such global notes have been accepted for clearance and settlement by Euroclear, Clearstream, CDP or, as the case may be, DTC) are in operation.

Floating Rate Notes and Variable Rate Notes

The applicable Pricing Supplement relating to a Floating Rate Note will designate an interest rate formula for such Floating Rate Note. Such formula may be: (a) the Commercial Paper Rate, in which case such Note will be a Commercial Paper Rate Note, (b) the Prime Rate, in which case such Note will be a Prime Rate Note, (c) the CD Rate, in which case such Note will be a CD Rate Note, (d) EURIBOR, in which case such Note will be a EURIBOR Note, (e) SIBOR, in which case such Note will be a SIBOR Note, (f) the Swap Rate, in which case such Note will be a Swap Rate Note, (g) variable rate, in which case such Note will be a Variable Rate Note, (h) the Federal Funds Rate, in which case such Note will be a Federal Funds Rate Note, (i) LIBOR, in which case such Note will be a LIBOR Note, (j) the Treasury Rate, in which case such Note will be a Treasury Rate Note, (k) the CMT Rate, in which case such Note will be a CMT Rate Note or (l) such other interest rate formula as is set forth in such Pricing Supplement. The applicable Pricing Supplement for a Floating Rate Note will also specify the Spread and/or Spread Multiplier, if any, and the maximum or minimum interest rate limitation, if any, applicable to each Note. In addition, such Pricing Supplement will define or specify for each Floating Rate Note the following terms, if applicable: Calculation Dates, Initial Interest Rate, Interest Payment Dates, Regular Record Dates, Index Maturity, Interest Determination Dates and Interest Reset Dates with respect to such Notes. Unless otherwise specified in the applicable Pricing Supplement, the relevant Issuing and Paying Agent will act as Calculation Agent with respect to the Floating Rate Notes.

The rate of interest on each Floating Rate Note will be reset daily, weekly, monthly, quarterly, semiannually, annually, or such other time or date as specified in the applicable Pricing Supplement. Each date on which the rate of interest on Floating Rate Notes is reset as set forth below is hereinafter referred to as an "Interest Reset Date". Except as otherwise provided in the next sentence, and unless otherwise specified in the applicable Pricing Supplement, the date on which the rate of interest on Floating Rate Notes (other than SIBOR Notes, Swap Rate Notes and Variable Rate Notes) is reset will be, in the case of Floating Rate Notes which reset daily, each Market Day; in the case of Floating Rate Notes (other than Treasury Rate Notes) which reset weekly, the Wednesday of each week; in the case of Treasury Rate Notes which reset weekly, the Tuesday of each week, except as provided below; in the case of Floating Rate Notes which reset monthly, the third Wednesday of each month; in the case of Floating Rate Notes which reset quarterly, the third Wednesday of March, June, September and December; in the case of Floating Rate Notes which reset semiannually, the third Wednesday of two months of each year, as indicated in the applicable Pricing Supplement; and in the case of Floating Rate Notes which reset annually, the third Wednesday of one month of each year, as indicated in the applicable Pricing Supplement; provided, however, that (a) the interest rate in effect from the Original Issue Date of a Floating Rate Note (or that of a predecessor Note) to but excluding the first Interest Reset Date with respect to such Floating Rate Note will be the Initial Interest Rate (as set forth in the applicable Pricing Supplement) and (b) unless otherwise specified in the applicable Pricing Supplement, the interest rate for the 10 days immediately prior to Maturity will be that in effect on the tenth day preceding such Maturity. If any Interest Reset Date for any Floating Rate Note would otherwise be a day that is not a Market Day with respect to such Note, such Interest Reset Date shall be the next succeeding Market Day with respect to such Notes, except that if such Note is a LIBOR Note and the next succeeding such Market Day falls in the next succeeding calendar month, such Interest Reset Date shall be the immediately preceding Market Day.

The Interest Determination Date pertaining to an Interest Reset Date for a Commercial Paper Rate Note (the "Commercial Paper Interest Determination Date"), a Prime Rate Note (the "Prime Rate Interest Determination Date"), a CD Rate Note (the "CD Rate Interest Determination Date"), a Federal Funds Rate Note (the "Federal Funds Interest Determination Date"), a CMT Rate Note (the "CMT Rate Interest Determination Date") or a EURIBOR Note (the "EURIBOR Interest Determination Date") will be the second Market Day preceding such Interest Reset Date. The Interest Determination Date pertaining to an Interest Reset Date for a LIBOR Note (the "LIBOR Interest Determination Date") will be London Market Day preceding such Interest Reset Date. The Interest Determination Date for a SIBOR Note (the "SIBOR Interest Determination Date") or a Swap Rate Note (the "Swap Rate Interest Determination Date") will be the second Singapore Market Day preceding such Interest Reset Date. The Interest Determination Date pertaining to an Interest Reset Date for a Treasury Rate Note (the "Treasury Interest Determination Date") will be the day on which Treasury bills are normally auctioned for the week in which such Interest Reset Date falls, or if no auction is held for such week, the Monday of such week (or, if Monday is a legal holiday, the next succeeding Market Day) and the Interest Reset Date will be the Market Day immediately following such Treasury Interest Determination Date. Treasury bills are usually sold at auction on Monday of each week, unless that day is a legal holiday, in which case the auction is usually held on the following Tuesday, except that such auction may be held on the preceding Friday. If an auction is held for such week on Monday or the preceding Friday, such Monday or preceding Friday shall be the Treasury Interest Determination Date for such week, and the Interest Reset Date for such week shall be the Tuesday of such week (or, if such Tuesday is not a Market Day, the next succeeding Market Day). If the auction for such week is held on any day of such week other than Monday, then such date shall be the Treasury Interest Determination Date and the Interest Reset Date for such week shall be the next succeeding Market Day.

Unless otherwise specified in the applicable Pricing Supplement, the "Calculation Date," where applicable, pertaining to any Interest Determination Date will be the first to occur of (a)(i) in the case of any CD Rate Interest Determination Date, Commercial Paper Interest Determination Date, Treasury Interest Determination Date, Federal Funds Interest Determination Date or CMT Rate Interest Determination Date, the tenth day after such interest determination date or, if any such day is not a Market Day, the next succeeding Market Day or (ii) in the case of any Prime Rate Interest Determination Date, LIBOR Interest Determination Date, EURIBOR Interest Determination Date, SIBOR Interest Determination Date or Swap Rate Interest Determination Date, such interest determination date, and (b) the Market Day preceding the applicable Interest Payment Date or the Stated Maturity (or the date of redemption or repayment, if any), as the case may be.

A Floating Rate Note may have either or both of the following: (a) a maximum interest rate limitation, or ceiling, on the rate of interest which may accrue during any interest period; and (b) a minimum interest rate limitation, or floor, on the rate of interest which may accrue during any interest period. In addition to any maximum interest rate which may be applicable to any Floating Rate Note, the interest rate on the Floating Rate Notes will in no event be higher than the maximum rate permitted by New York law, as the same may be modified by United States federal law of general application. Under present New York law, the maximum rate is 25.0% per annum on a simple interest basis. This limit does not apply to Notes in which U.S.$2,500,000 or more has been invested.

The Interest Payment Date with respect to a Floating Rate Note will be the third Wednesday of the month or months specified in the applicable Pricing Supplement, provided that in the case of a SIBOR Note, a Swap Rate Note or a Variable Rate Note, the Interest Payment Date shall be each date which falls the number of months specified as the Interest Period (as defined below) in the applicable Pricing Supplement after the preceding Interest Payment Date or, in the case of the first Interest Payment Date, after the Interest Commencement Date (and which corresponds numerically with such preceding Interest Payment Date or the Interest Commencement Date, as the case may be), provided that the Agreed Yield (as defined below) in respect of any Variable Rate Note for any Interest Period relating to that Variable Rate Note shall be payable on the first day of that Interest Period. If, pursuant to the preceding sentence, an Interest Payment Date with respect to any Floating Rate Note would otherwise be a day that is not a Market Day with respect to such Note, such Interest Payment Date shall be the next succeeding Market Day with respect to such Note, except that if such Note is a LIBOR Note, a EURIBOR Note, a SIBOR Note, a Swap Rate Note or a Variable Rate Note and the next succeeding such Market Day falls in the next succeeding calendar month, such Interest

Payment Date shall be the immediately preceding Market Day. If the date for payment of the principal of or any premium or interest on any Floating Rate Note at Maturity is not a Business Day at any place of payment, then such payment of principal, premium or interest need not be made on such date at such place of payment, but may be made on the next succeeding Business Day at such place of payment with the same force and effect as if made on the date for such payment of the principal, premium or interest and no interest shall accrue from and after any such date for payment.

Unless otherwise indicated in the applicable Pricing Supplement, the Regular Record Date for Floating Rate Notes shall be, in relation to Notes cleared through CDP or DTC, the date that is 15 calendar days prior to each Interest Payment Date, whether or not such date shall be a Market Day, and, in relation to Notes cleared through Euroclear or Clearstream, on the Clearing System Business Day before the due date for such payments, where "Clearing System Business Day" means a weekday (Monday to Friday, inclusive) except 25 December and 1 January. Unless otherwise specified in the applicable Pricing Supplement, interest payments for Floating Rate Notes shall be in the amount of interest accrued from and including (a) the Original Issue Date or (b) the most recent Interest Payment Date to which interest has been paid or duly provided for, as the case may be, to but excluding the Interest Payment Date; provided, however, that if the Interest Reset Dates with respect to any Floating Rate Note are daily or weekly, unless otherwise specified in the applicable Pricing Supplement, interest payable on any Interest Payment Date will include interest accrued from and including (a) the Original Issue Date or (b) the day following the most recent Regular Record Date in respect of which interest has been paid or duly provided for, as the case may be, to but excluding the day following the Regular Record Date immediately preceding such Interest Payment Date. Notwithstanding the foregoing, interest payable at Maturity will include interest accrued to but excluding the date of Maturity. Unless otherwise specified in the applicable Pricing Supplement, the interest accrued on a Floating Rate Note for any period will be calculated by multiplying the face amount of such Floating Rate Note by an accrued interest factor. Such accrued interest factor is computed by adding the interest factor calculated for each day in such period. The interest factor (expressed as a decimal rounded upwards, if necessary, as described below) for each such day is computed by dividing the interest rate (expressed as a decimal rounded upwards, if necessary, as described below) applicable to such day by, unless otherwise specified in the applicable Pricing Supplement, 360, in the case of Commercial Paper Rate Notes, Prime Rate Notes, CD Rate Notes, Federal Funds Rate Notes, LIBOR Notes, EURIBOR Notes, SIBOR Notes, Swap Rate Notes, Variable Rate Notes or by the actual number of days in the year, in the case of Treasury Rate Notes and CMT Rate Notes. All percentages resulting from any calculation of the interest rate on Floating Rate Notes will be rounded, if necessary, to the nearest one-hundredth thousandth of a percentage point, with five one-millionths of a percentage point rounded upwards (e.g. 9.876545% (or .09876545) being rounded to 9.87655% (or .0987655) and 9.876544% (or .09876544) being rounded to 9.87654% (or .0987654)), and all Singapore dollar amounts used in or resulting from such calculation on Floating Rate Notes will be rounded to the nearest cent, or in the case of Foreign Currency Notes, the nearest unit (with one-half cent or unit being rounded upwards). Unless otherwise indicated in the applicable Pricing Supplement, the interest rate in effect with respect to a Floating Rate Note on any day that is not an Interest Reset Date will be the interest rate determined as of the Interest Determination Date pertaining to the immediately preceding Interest Reset Date (or if there is none, the Initial Interest Rate), and the interest rate in effect on any day that is an Interest Reset Date will be the interest rate determined as of the Interest Determination Date pertaining to such Interest Reset Date, subject in either case to any maximum or minimum interest rate limitation referred to above; provided, however, that the interest rate in effect for the 10 calendar days prior to Maturity shall be the interest rate in effect on the tenth calendar day prior to Maturity.

Upon the request of the holder of any Floating Rate Note or the Company or the Guarantor, the Calculation Agent (which shall be the relevant Issuing and Paying Agent unless otherwise specified in the applicable Pricing Supplement) will provide the interest rate then in effect, and, if determined, the interest rate which will become effective on the next Interest Reset Date or for the next Interest Period (in the case of SIBOR Notes, Swap Rate Notes or Variable Rate Notes) as a result of a determination made on the most recent Interest Determination Date with respect to such Floating Rate Note. The Company will procure that, so long as any SIBOR Note, Swap Rate Note or Variable Rate Note remains outstanding, there shall at all times be three Reference Banks (or such other number as may be required). If any Reference Bank is unable or unwilling to continue to act as a Reference Bank, the Company will appoint another bank to act in its place.

Interest rates on Floating Rate Notes will be determined by the Calculation Agent as follows:

Commercial Paper Rate Notes

Each Commercial Paper Rate Note will bear interest at the interest rate (calculated with reference to the Commercial Paper Rate and the Spread and/or Spread Multiplier, if any) specified in the applicable Pricing Supplement.

Unless otherwise indicated in the applicable Pricing Supplement, "Commercial Paper Rate" means, with respect to any Commercial Paper Interest Determination Date, the Money Market Yield (calculated as described below) of the rate on such date for commercial paper having the Index Maturity specified in the applicable Pricing Supplement set forth in H.15(519) under the caption "Commercial Paper — Nonfinancial". In the event that such rate is not published prior to 3:00 p.m., New York City time, on the Calculation Date pertaining to such Commercial Paper Interest Determination Date, then the Commercial Paper Rate shall be the Money Market Yield of the rate on such Commercial Paper Interest Determination Date for commercial paper having the Index Maturity specified in the applicable Pricing Supplement as published in H.15 Daily Update under the heading "Commercial Paper/Nonfinancial". If by 3:00 p.m., New York City time, on such Calculation Date such rate is not yet published in either H.15(519) or H.15 Daily Update, the Commercial Paper Rate for that Commercial Paper Interest Determination Date shall be calculated by the Calculation Agent and shall be the Money Market Yield of the arithmetic mean of the offered rates, as of 11:00 a.m., New York City time, on that Commercial Paper Interest Determination Date, of three leading dealers of commercial paper in the City of New York selected by the Company and notified in writing to the Calculation Agent for commercial paper having the Index Maturity specified in the applicable Pricing Supplement placed for an industrial issuer whose bond rating is "Aa," or the equivalent, from a nationally recognized rating agency; provided, however, that if the dealers selected as aforesaid by the Company are not quoting as mentioned in this sentence, the Commercial Paper Rate will be the Commercial Paper Rate in effect on such Commercial Paper Interest Determination Date. "Money Market Yield" shall be a yield (expressed as a percentage) calculated in accordance with the following formula:

$$\text{Money Market Yield} = \frac{D \times 360}{360 - (D \times M)} \times 100$$

where "D" refers to the per annum rate for commercial paper quoted on a bank discount basis and expressed as a decimal; and "M" refers to the actual number of days in the interest period for which interest is being calculated.

Prime Rate Notes

Each Prime Rate Note will bear interest at the interest rate (calculated with reference to the Prime Rate and the Spread and/or Spread Multiplier, if any) specified and in the applicable Pricing Supplement.

Unless otherwise indicated in the applicable Pricing Supplement, "Prime Rate" means, with respect to any Prime Rate Interest Determination Date, the rate set forth on such date in H.15(519) under the heading "Bank prime loan". In the event that such rate is not published prior to 3:00 p.m., New York City time, then the Prime Rate will be the rate on such Prime Rate Interest Determination Date as published in H.15 Daily Update, or such other recognized electronic source used for the purpose of displaying such rate, under the heading "Bank Prime Loan". In the event such rate is not published in either H.15(519) or H.15 Daily Update, then the Prime Rate will be the arithmetic mean of the rates of interest publicly announced by three major banks in the City of New York as such banks' U.S. dollar prime rate or base lending rate as in effect for that Prime Rate Interest Determination Date. If fewer than three such rates but more than one are provided for the Prime Rate Interest Determination Date, the Prime Rate will be the arithmetic mean of the prime rates quoted on the basis of the actual number of days in the year divided by 360 as of the close of business on such Prime Rate Interest Determination Date by at least two of the three major money center banks in the City of New York selected by the Company and notified in writing to the Calculation Agent from which quotations are requested. If fewer than two quotations are provided, the Prime Rate shall be determined on the basis of the rates furnished in the City of New York by the appropriate number of substitute banks or trust companies organized and doing business under the laws of the United States, or any State thereof, in each case having

total equity capital of at least U.S.$500,000,000 and being subject to supervision or examination by Federal or State authority, selected by the Company to provide such rate or rates and notified in writing to the Calculation Agent, provided, however, that if the banks or trust companies selected as aforesaid by the Company are not quoting rates as set forth above, the "Prime Rate" in effect for such Interest Reset Period will be the same as the Prime Rate for the immediate preceding Interest Reset Period (or, if there was no such Interest Reset Period, the rate of interest payable on the Prime Rate Notes for which such Prime Rate is being determined shall be the Initial Interest Rate).

CD Rate Notes

Each CD Rate Note will bear interest at the interest rate (calculated with reference to the CD Rate and the Spread and/or Spread Multiplier, if any) specified in the applicable Pricing Supplement.

Unless otherwise indicated in the applicable Pricing Supplement, "CD Rate" means, with respect to any CD Rate Interest Determination Date, the rate on such date for negotiable certificates of deposit having the Index Maturity specified in the applicable Pricing Supplement as published in H.15(519) under the heading "CDs (Secondary Market)". In the event that such rate is not published prior to 3:00 p.m., New York City time, on the Calculation Date pertaining to such CD Rate Interest Determination Date, then the CD Rate shall be the rate on such CD Rate Interest Determination Date for negotiable certificates of deposit having the Index Maturity specified in the applicable Pricing Supplement as published in H.15 Daily Update under the heading "CDs (Secondary Market)". If by 3:00 p.m., New York City time, on such Calculation Date such rate is not published in either H.15(519) or H.15 Daily Update, the CD Rate for that CD Interest Determination Date shall be calculated by the Calculation Agent and shall be the arithmetic mean of the secondary market offered rates, as of 10:00 a.m., New York City time, on that CD Rate Interest Determination Date, of three leading nonbank dealers in negotiable U.S. dollar certificates of deposit in the City of New York selected by the Company and notified in writing to the Calculation Agent, for negotiable U.S. dollar certificates of deposit of major United States money market banks with a remaining maturity closest to the Index Maturity specified in the applicable Pricing Supplement in a denomination of U.S.$5,000,000; provided, however, that if the dealers selected as aforesaid by the Company are not quoting as mentioned in this sentence, the CD Rate will be the CD Rate in effect on such CD Rate Interest Determination Date.

Federal Funds Rate Notes

Each Federal Funds Rate Note will bear interest at the interest rate (calculated with reference to the Federal Funds Rate and the Spread and/or Spread Multiplier, if any) specified in the applicable Pricing Supplement Unless otherwise indicated in the applicable Pricing Supplement "Federal Funds Rate" means, with respect to any Federal Funds Interest Determination Date, the rate on such date for Federal Funds having the Index Maturity specified in the applicable Pricing Supplement as published in H.15(519) under the heading "EFFECT" as displayed on the Reuters Screen FEDFUNDS1 Page. In the event that such rate is not published prior to 3:00 p.m., New York City time, on the Calculation Date pertaining to such Federal Funds Interest Determination Date, then the Federal Funds Rate will be the rate on such Federal Funds Interest Determination Date as published in H.15 Daily Update or such other recognized electronic source used for the purpose of displaying such rate under the heading "Federal funds (effective)". If by 3:00 p.m., New York City time, on such Calculation Date such rate does not appear on Reuters Screen FEDFUNDS1 Page or is not published in either H.15(519), H.15 Daily Update or such other recognized source, the Federal Funds Rate for that Federal Funds Interest Determination Date shall be calculated by the Calculation Agent and shall be the arithmetic mean of the rates, prior to 9:00 a.m., New York City time, on that Federal Funds Interest Determination Date, for the last transaction in overnight U.S. dollar Federal Funds arranged by three leading brokers of Federal Funds transactions in the City of New York selected by the Company and notified in writing to the Calculation Agent; provided, however, that if the brokers selected as aforesaid by the Company are not quoting as mentioned in this sentence, the Federal Funds Rate will be the Federal Funds Rate in effect on such Federal Funds Interest Determination Date.

LIBOR Notes

Each LIBOR Note will bear interest at the interest rate (calculated with reference to LIBOR and the Spread and/or Spread Multiplier, if any) specified in the applicable Pricing Supplement.

Unless otherwise indicated in the applicable Pricing Supplement, LIBOR will be determined by the Calculation Agent in accordance with the following provisions:

(a) With respect to any LIBOR Interest Determination Date, LIBOR will be determined on the basis of the offered rate for deposits of not less than U.S.$1,000,000 having the Index Maturity specified in the applicable Pricing Supplement, commencing on the second London Market Day immediately following such LIBOR Interest Determination Date, which appears on (1) if "LIBOR-LIBO" is specified in the applicable Pricing Supplement, the relevant screen page as specified in the Pricing Supplement (or such other page as may replace such page on that service for the purpose of displaying London interbank offered rates of major banks for deposits in U.S. dollars) or (2) if "LIBOR" is specified in the applicable Pricing Supplement, the relevant screen page as specified in the applicable Pricing Supplement (or such other page as may replace any such page on that service for the purpose of displaying London interbank offered rates of major banks for deposits in U.S. dollars) in each case as of 11:00 a.m., London time, on that LIBOR Interest Determination Date. If no such offered rate appears, LIBOR for such LIBOR Interest Determination Date will be determined as described in (b) below.

(b) With respect to a LIBOR Interest Determination Date on which no rate appears on the relevant screen page as specified in the applicable Pricing Supplement as described in (a) above, LIBOR will be determined on the basis of the rates at approximately 11:00 a.m., London time, on such LIBOR Interest Determination Date at which deposits in U.S. dollars having the Index Maturity specified in the applicable Pricing Supplement are offered to prime banks in the London interbank market by four major banks in the London interbank market selected by the Company and in a principal amount equal to an amount of not less than U.S.$1,000,000 that is representative for a single transaction in such market at such time. The Company will request the principal London office of each of such banks to provide a quotation of its rate and such rate shall be notified in writing to the Calculating Agent. If at least two such quotations are provided, LIBOR for such LIBOR Interest Determination Date will be the arithmetic mean of such quotations as determined by the Calculation Agent. If fewer than two quotations are provided, LIBOR for such LIBOR Interest Determination Date will be the arithmetic mean of the rates quoted at approximately 11:00 a.m., New York City time, on such LIBOR Interest Determination Date by three major banks in the City of New York, selected by the Company and notified in writing to the Calculation Agent, for loans in U.S. dollars to leading European banks having the specified Index Maturity and in a principal amount equal to an amount of not less than U.S.$1,000,000 that is representative for a single transaction in such market at such time; provided, however, that if the Interest Rate cannot be determined in accordance with the foregoing provisions of this paragraph, the Interest Rate shall be determined as at the last preceding Interest Determination Date (though substituting, where a different margin or Maximum Interest Rate or Minimum Interest Rate is to be applied to the relevant Interest Period from that which applied to the last preceding Interest Period, the margin or Maximum Interest Rate or Minimum Interest Rate relating to the relevant Interest Period, in place of the margin or Maximum Interest Rate or Minimum Interest Rate relating to that last preceding Interest Period).

EURIBOR Notes

Each EURIBOR Note will bear interest at the interest rate (calculated with reference to EURIBOR and the Spread and/or Spread Multiplier, if any) specified in the applicable Pricing Supplement.

Unless otherwise indicated in the applicable Pricing Supplement, EURIBOR will be determined by the Calculation Agent in accordance with the following provisions:

(a) With respect to any EURIBOR Interest Determination Date, EURIBOR will be determined on the basis of the offered rate for deposits of not less than the equivalent of U.S.$1,000,000 in euros having the Index Maturity specified in the applicable Pricing Supplement, commencing on the second London Market Day immediately following such EURIBOR Interest Determination Date, which rate appears on the Reuters Screen EURIBOR01 Page (or such other page as may replace any such page on that service for the purpose of displaying Euro-zone interbank offered rates of major banks) as of 11:00 a.m., Brussels time, on that EURIBOR Interest Determination Date. If no such offered rate appears, EURIBOR for such EURIBOR Interest Determination Date will be determined as described in (b) below.

(b) With respect to a EURIBOR Interest Determination Date on which no rate appears on the Reuters Screen EURIBOR01 Page described in (a) above, EURIBOR will be determined on the basis of the rates at approximately 11:00 a.m., Brussels time, on such EURIBOR Interest Determination Date at which deposits in euros having the Index Maturity specified in the applicable Pricing Supplement are offered to prime banks in the Euro-zone interbank market by the four major banks in the Eurozone Interbank market selected by the Company and in a principal amount equal to an amount of not less than U.S.$1,000,000 that is representative for a single transaction in such market at such time and such rate shall be notified in writing to the Calculation Agent. The Company will request the principal Euro-zone office of each of such banks to provide a quotation of its rate. If at least two such quotations are provided, EURIBOR for such EURIBOR Interest Determination Date will be the arithmetic mean of such quotations as determined by the Calculation Agent. If fewer than two quotations are provided, EURIBOR for such EURIBOR Interest Determination Date will be the arithmetic mean of the rates quoted at approximately 11:00 a.m., Brussels time, on such EURIBOR Interest Determination Date, by four major banks in the Euro-zone selected by the Company and notified in writing to the Calculation Agent, for loans in euros to leading European banks having the specified Index Maturity and in a principal amount equal to an amount of not less than U.S.$1,000,000 that is representative for a single transaction in such market at such time, provided, however, that if the Interest Rate cannot be determined in accordance with the foregoing provisions of this paragraph, the Interest Rate shall be determined as at the last preceding Interest Determination Date (though substituting, where a different margin or Maximum Interest Rate or Minimum Interest Rate is to be applied to the relevant Interest Period from that which applied to the last preceding Interest Period, the margin or Maximum Interest Rate or Minimum Interest Rate relating to the relevant Interest Period, in place of the margin or Maximum Interest Rate or Minimum Interest Rate relating to that last preceding Interest Period).

Treasury Rate Notes

Each Treasury Rate Note will bear interest at the interest rate (calculated with reference to the Treasury Rate and the Spread and/or Spread Multiplier, if any) specified in the applicable Pricing Supplement.

Unless otherwise indicated in the applicable Pricing Supplement, "Treasury Rate" means, with respect to any Treasury Interest Determination Date, the rate for the most recent auction of direct obligations of the United States ("Treasury Bills") having the Index Maturity specified in the applicable Pricing Supplement on the display on the Reuters Screen USAUCTION10 Page or Reuters Screen USAUCTION11 page under the heading "INVEST RATE". If not so published by 3:00 p.m., New York City time, on the Calculation Date pertaining to such Treasury Interest Determination Date, the "Treasury Rate" means the auction rate (expressed as a bond equivalent on the basis of a year of 365 or 366 days, as applicable, and applied on a daily basis) for those Treasury Bills as announced by the United States Department of the Treasury. In the event that the results of the auction of Treasury Bills having the Index Maturity specified in the applicable Pricing Supplement are not published or reported as provided above by 3:00 p.m., New York City time, then the Treasury Rate will be the rate as published in H.15 Daily Update, or such other recognized electronic source used for the purpose of displaying such rate, under the heading "U.S. Government Securities/Treasury Bills/Auction high". In the event that the results of the auction of the Treasury bills having the Index Maturity specified in the applicable Pricing Supplement are not published or reported as provided above by 3:00 p.m.,

New York City time, on such Calculation Date, or if no such auction is held in a particular week, then the Treasury Rate shall be calculated by the Calculation Agent and shall be a yield to maturity (expressed as a bond equivalent on the basis of a year of 365 or 366 days, as applicable, and applied on a daily basis) of the arithmetic mean of the secondary market bid rates as of approximately 3:30 p.m., New York City time, on such Treasury Interest Determination Date, of three leading primary United States government securities dealers selected by the Company and notified in writing to the Calculation Agent, for the issue of Treasury Bills with a remaining maturity closest to the specified Index Maturity; provided, however, that if the Interest Rate cannot be determined in accordance with the foregoing provisions of this paragraph, the Interest Rate shall be determined as at the last preceding Interest Determination Date (though substituting, where a different margin or Maximum Interest Rate or Minimum Interest Rate is to be applied to the relevant Interest Period from that which applied to the last preceding Interest Period, the margin or Maximum Interest Rate or Minimum Interest Rate relating to the relevant Interest Period, in place of the margin or Maximum Interest Rate or Minimum Interest Rate relating to that last preceding Interest Period).

CMT Rate Notes

Each CMT Rate Note will bear interest at the interest rate (calculated with reference to the CMT Rate and the Spread and/or Spread Multiplier, if any) specified in the applicable Pricing Supplement.

Unless otherwise indicated in an applicable Pricing Supplement, "CMT Rate" means, with respect to any CMT Interest Determination Date, the rate displayed for the Index Maturity designated in such CMT Rate Note as set forth in H.15(519) under the caption "Treasury constant maturities," for the Designated CMT Maturity Index (as defined below) for (i) if the Reuters Screen Page specified in the applicable Pricing Supplement is Reuters Screen FRBCMT Page, the rate on such CMT Interest Determination Date and (ii) if the Reuters Screen Page specified in the applicable Pricing Supplement is Reuters Screen FEDCMT Page, the week or the month, as applicable, ended immediately preceding the week in which the related CMT Interest Determination Date occurs. If such rate is no longer displayed on the relevant page, or if not displayed by 3:00 p.m., New York City time, on the related Calculation Date, then the CMT Rate for such CMT Interest Determination Date will be the rate for Treasury Securities at "constant maturity" for the Designated CMT Maturity Index as published in the relevant H.15(519) under the caption "Treasury constant maturities". If such rate is no longer published, or if not published by 3:00 p.m., New York City time, on the related Calculation Date, then the CMT Rate for such CMT Interest Determination Date will be rate for the Designated CMT Maturity Index for the CMT Interest Determination Date with respect to the related CMT Interest Reset Date as may then be published by either the Board of Governors of the Federal Reserve System or the United States Department of the Treasury which would otherwise have been published H.15(519). If such information is not provided by 3:00 p.m., New York City time, on the related Calculation Date, then the CMT Rate for the CMT Interest Determination Date will be calculated by the Calculation Agent and will be a yield to maturity, based on the arithmetic mean of the secondary market bid prices at approximately 3:30 p.m., New York City time, on the CMT Interest Determination Date by three leading primary United States government securities dealers (each a "Reference Dealer") in the City of New York (which may include the Agents or their affiliates) selected by the Company (from five such Reference Dealers selected by the Company and eliminating the highest quotation (or, in the event of equality, one of the highest) and the lowest quotation (or, in the event of equality, one of the lowest)) and notified in writing to the Calculation Agent, for the most recently issued direct non-callable fixed rate obligations of the United States ("Treasury Notes") with an original maturity of approximately the Designated CMT Maturity Index and remaining term to maturity of not less than such Designated CMT Maturity Index minus one year. If the Calculation Agent cannot obtain three such Treasury Notes quotations, the CMT Rate for such CMT Interest Determination Date will be calculated by the Calculation Agent and will be a yield to maturity based on the arithmetic mean of the secondary market bid prices as of approximately 3:30 p.m., New York City time, on the CMT Interest Determination Date of three Reference Dealers in the City of New York selected by the Company (from five such Reference Dealers selected by the Company, and eliminating the highest quotation (or, in the event of equality, one of the highest) and the lowest quotation (or, in the event of equality, one of the lowest)) and notified in writing to the Calculation Agent, for Treasury Notes with an original maturity of the number of years that is the next highest to the Designated CMT Maturity Index and a remaining term to maturity closest to the Designated CMT Maturity Index and in an amount of at least U.S.$100,000,000. If three or four (and not five) of such Reference Dealers are quoting as described above, then the CMT Rate will be based on the arithmetic mean of the bid prices obtained and neither the highest nor the lowest of such quotes will be eliminated: provided, however, that if fewer than three Reference Dealers selected by the Company are

quoting as described herein, the CMT Rate for such Interest Reset Date will be the same as the CMT Rate in effect on such CMT Interest Determination Date. If two Treasury Notes with an original maturity have remaining terms to maturity equally close to the Designated CMT Maturity Index, the quotes for the Treasury Note with the shorter remaining term to maturity will be used.

"Designated CMT Maturity Index" shall be the original period to maturity of the U.S. Treasury securities (either 1, 2, 3, 5, 7, 10, 20 or 30 years) specified in an applicable Pricing Supplement with respect to which the CMT Rate will be calculated. If no such maturity is specified in the applicable Pricing Supplement, the Designated CMT Maturity Index shall be two years.

SIBOR Notes

Each SIBOR Note which is denominated in Singapore dollars will bear interest at the interest rate (calculated with reference to SIBOR and the Spread and/or Spread Multiplier, if any) specified in the applicable Pricing Supplement.

Unless otherwise indicated in the applicable Pricing Supplement, SIBOR will be determined by the Calculation Agent in accordance with the following provisions:

(a) at or about 11.00 a.m., Singapore time on the relevant SIBOR Interest Determination Date in respect of each Interest Period, SIBOR for such Interest Period will be determined on the basis of the offered rate for deposits in Singapore dollars for a period equal to the duration of such Interest Period which appears on the Reuters Screen ABSIRFIX01 page under the caption "ABS SIBOR FIX — SIBOR AND SWAP OFFER RATES — RATES AT 11.00 HRS SINGAPORE TIME" and under the column headed "SGD SIBOR" (or such other Screen Page as may be provided hereon) and as adjusted by the Spread (if any), being the offered rate for deposits in Singapore dollars in each case as of 11.00 a.m., Singapore time, and as adjusted by the Spread (if any), on that SIBOR Interest Determination Date for a period equal to the duration of such Interest Period. If no such offered rate appears, SIBOR for such SIBOR Interest Determination Date for such Interest Period will be determined as described in (b) below.

(b) (i) with respect to a SIBOR Interest Determination Date on which no rate appears on Reuters Screen ABSIRFIX01 (or such other replacement page thereof or if no rate appears on such other Screen Page as may be provided hereon) or if Reuters Screen ABSIRFIX01 (or such other replacement page thereof or such other Screen Page as may be provided hereon) is unavailable for any reason, the Calculation Agent will request the principal Singapore offices of each of the Reference Banks to provide the Calculation Agent with the rate at which deposits in Singapore dollars are offered by it at approximately 11.00 a.m., Singapore time on such SIBOR Interest Determination Date to prime banks in the Singapore interbank market for a period equivalent to the duration of such Interest Period commencing on such SIBOR Interest Payment Date in an amount comparable to the aggregate principal amount of the relevant Floating Rate Notes. The SIBOR for such Interest Period shall be the arithmetic mean (rounded up, if necessary, to the nearest 1/16 per cent.) of such offered quotations and as adjusted by the Spread (if any), as determined by the Calculation Agent, (ii) if on any SIBOR Interest Determination Date two but not all the Reference Banks provide the Calculation Agent with such quotations, SIBOR for the relevant Interest Period shall be determined in accordance with (b)(i) above on the basis of the quotations of those Reference Banks providing such quotations. If on any SIBOR Interest Determination Date one only or none of the Reference Banks provides the Calculation Agent with such quotations, SIBOR for the relevant Interest Period shall be the rate per annum which the Calculation Agent determines to be the arithmetic mean (rounded up, if necessary, to the nearest 1/16 per cent.) of the rates quoted by the Reference Banks or those of them (being at least two in number) to the Calculation Agent at or about 11.00 a.m., Singapore time on such SIBOR Interest Determination Date as being their cost (including the cost occasioned by or attributable to complying with reserves, liquidity, deposit or other requirements imposed on them by any relevant authority or authorities) of funding, for the relevant Interest Period, an amount equal to the aggregate principal amount of the relevant Floating Rate Notes for such Interest Period by whatever means they determine to be most appropriate and as adjusted by the Spread (if any) or

if on such SIBOR Interest Determination Date one only or none of the Reference Banks provides the Calculation Agent with such quotation, the rate per annum which the Calculation Agent determines to be the arithmetic mean (rounded up, if necessary, to the nearest 1/16 per cent.) of the prime lending rates for Singapore dollars quoted by the Reference Banks at or about 11.00 a.m., Singapore time on such SIBOR Interest Determination Date and as adjusted by the Spread (if any).

(c) "Reference Banks" means the institutions specified as such in the applicable Pricing Supplement or, if none, three major banks selected by the Calculation Agent in the interbank market that is most closely connected with SIBOR.

"Interest Commencement Date" means the Original Issue Date or such other date as may be specified as the Interest Commencement Date in the applicable Pricing Supplement.

"Interest Period" means the period beginning on the Interest Commencement Date and ending on the first Interest Payment Date and each successive period beginning on an Interest Payment Date and ending on the next succeeding Interest Payment Date.

"Screen Page" means such page, section, caption, column or other part of a particular information service (including, but not limited to, the Reuters Monitor Money Rates Service ("Reuters")) as may be specified hereon for the purpose of providing SIBOR, or such other page, section, caption, column or other part as may replace it on that information service or on such other information service, in each case as may be nominated by the person or organization providing or sponsoring the information appearing there for the purpose of displaying rates or prices comparable to SIBOR.

Swap Rate Notes

Each Swap Rate Note which is denominated in Singapore dollars will bear interest at the interest rate (calculated with reference to the Swap Rate and the Spread and/or Spread Multiplier, if any) specified in the applicable Pricing Supplement.

Unless otherwise indicated in the applicable Pricing Supplement, Swap Rate will be determined by the Calculation Agent in accordance with the following provisions:

(a) at or about 11.00 a.m., London time on the relevant Swap Rate Interest Determination Date in respect of each Interest Period, the Swap Rate for such Interest Period will be the rate which appears on the Reuters Screen ABSFIX01 page under the caption "SGD SOR rates as of 11:00 hrs London Time" under the column headed "SGD SOR" (or such replacement page thereof for the purpose of displaying the swap rates of leading reference banks) at or about 11.00 a.m., London time, on such Swap Rate Interest Determination Date and for a period equal to the duration of such Interest Period and as adjusted by the Spread (if any);

(b) if on any Swap Rate Interest Determination Date, no such rate is quoted on Reuters Screen ABSFIX01 page (or such other replacement page as aforesaid) or Reuters Screen ABSFIX01 page (or such other replacement page as aforesaid) is unavailable for any reason, such Calculation Agent will determine the Swap Rate for such Interest Period as being the rate (or, if there is more than one rate which is published, the arithmetic average of those rates (rounded up, if necessary, to the nearest 1/16 per cent.)) for a period equal to the duration of such Interest Period published by a recognized industry body where such rate is widely used (after taking into account the industry practice at that time), or by such other relevant authority as such Calculation Agent may select; and

(c) if on any Swap Rate Interest Determination Date such Calculation Agent is otherwise unable to determine the Swap Rate under paragraphs (a) and (b) above, the Swap Rate shall be determined by such Calculation Agent to be the rate per annum equal to the arithmetic mean (rounded up, if necessary, to four decimal places) of the rates quoted by the Reference Banks or those of them (being at least two in number) to such Calculation Agent at or about 11.00 a.m., Singapore time on the first business day following such Swap Rate Interest Determination Date (and such rate shall be notified in writing to the Calculation Agent) as being their cost (including the cost

occasioned by or attributable to complying with reserves, liquidity, deposit or other requirements imposed on them by any relevant authority or authorities) of funding, for the relevant Interest Period, an amount equal to the aggregate principal amount of the relevant Floating Rate Notes for such Interest Period by whatever means they determine to be most appropriate, or if on such day one only or none of the Reference Banks provides such Calculation Agent with such quotation, the Swap Rate for the relevant Interest Period shall be the rate per annum equal to the arithmetic mean (rounded up, if necessary, to four decimal places) of the prime lending rates for Singapore dollars quoted by the Reference Banks at or about 11.00 a.m., Singapore time, on such Swap Rate Interest Determination Date and as adjusted by the Spread (if any).

"Interest Commencement Date" means the Original Issue Date or such other date as may be specified as the Interest Commencement Date in the applicable Pricing Supplement.

"Interest Period" means the period beginning on the Interest Commencement Date and ending on the first Interest Payment Date and each successive period beginning on an Interest Payment Date and ending on the next succeeding Interest Payment Date.

"Reference Banks" means the institutions specified as such in the applicable Pricing Supplement or, if none, three major banks selected by the Calculation Agent in the interbank market that is most closely connected with the Swap Rate.

"Screen Page" means such page, section, caption, column or other part of a particular information service (including, but not limited to, the Reuters Monitor Money Rates Service ("Reuters")) as may be specified hereon for the purpose of providing the Swap Rate, or such other page, section, caption, column or other part as may replace it on that information service or on such other information service, in each case as may be nominated by the person or organization providing or sponsoring the information appearing there for the purpose of displaying rates or prices comparable to the Swap Rate.

Variable Rate Notes

Each Variable Rate Note which is denominated in Singapore dollars will bear interest at a variable rate determined below.

Unless otherwise indicated in the applicable Pricing Supplement, "Agreed Yield" means the interest payable in respect of a Variable Rate Note on the first day of an Interest Period relating to that Variable Rate Note and "Rate of Interest" means the rate of interest payable in respect of a Variable Rate Note on the last day of an Interest Period relating to that Variable Rate Note. The Agreed Yield or, as the case may be, the Rate of Interest payable from time to time in respect of each Variable Rate Note shall be determined by the Calculation Agent in accordance with the following provisions:

(a) Not earlier than 9 a.m., Singapore time, on the ninth Business Day nor later than 3 p.m., Singapore time, on the third Business Day prior to the commencement of each Interest Period, the Company and the Relevant Dealer (as defined below) shall endeavor to agree on (i) whether interest in respect of such Variable Rate Note is to be paid on the first day or the last day of such Interest Period; (ii) if interest in respect of such Variable Rate Note is agreed between the Company and the Relevant Dealer to be paid on the first day of such Interest Period, an Agreed Yield in respect of such Variable Rate Note for such Interest Period (and, in the event of the Company and the Relevant Dealer so agreeing on such Agreed Yield, the interest payable for such Variable Rate Note for such Interest Period shall be zero); and (iii) if interest in respect of such Variable Rate Note is agreed between the Company and the Relevant Dealer to be paid on the last day of such Interest Period, a Rate of Interest in respect of such Variable Rate Note for such Interest Period (an "Agreed Rate") and, in the event of the Company and the Relevant Dealer so agreeing on an Agreed Rate, such Agreed Rate shall be the Rate of Interest for such Variable Rate Note for such Interest Period.

(b) If the Company and the Relevant Dealer shall not have agreed either an Agreed Yield or an Agreed Rate in respect of such Variable Rate Note for such Interest Period by 3 p.m., Singapore time, on the third Business Day prior to the commencement of such Interest Period, or if there shall be no Relevant Dealer during the period of agreement referred to in (a) above, the Rate of Interest for such Variable Rate Note for such Interest Period shall automatically be the rate per annum equal to the Fall Back Rate (as defined below) for such Interest Period.

For the purposes of paragraphs (a) and (b) above, the Rate of Interest for each Interest Period for which there is neither an Agreed Yield nor Agreed Rate in respect of any Variable Rate Note or no Relevant Dealer in respect of the Variable Rate Note(s) shall be the rate (the "Fall Back Rate") determined by reference to a Benchmark as stated in the applicable Pricing Supplement of such Variable Rate Note(s), being (in the case of Variable Rate Notes which are denominated in Singapore dollars) SIBOR (in which case such Variable Rate Note(s) will be SIBOR Note(s)) or Swap Rate (in which case such Variable Rate Note(s) will be Swap Rate Note(s)) or (in any other case or in the case of Variable Rate Notes which are denominated in a currency other than Singapore dollars) such other Benchmark as is set out in the applicable Pricing Supplement of such Variable Rate Note(s). Such rate may be adjusted by adding or subtracting the Spread (if any) stated in the applicable Pricing Supplement. The Fall Back Rate payable from time to time in respect of each Variable Rate Note will be determined by the Calculation Agent in accordance with the provisions of the rate of interest for SIBOR Notes or Swap Rate Notes (*mutatis mutandis*) and references therein to "SIBOR" or, as the case may be, "Swap Rate" shall mean "Fall Back Rate".

As soon as possible after the Agreed Yield or, as the case may be, the Agreed Rate in respect of any Variable Rate Note is determined but not later than 10.30 a.m., Singapore time, on the next following Business Day, the Company will (1) notify the relevant Issuing and Paying Agent and the Calculation Agent of the Agreed Yield or, as the case may be, the Agreed Rate for such relevant Variable Rate Note for such Interest Period; and (2) cause such Agreed Yield or, as the case may be, Agreed Rate for such Variable Rate Note to be notified by the relevant Issuing and Paying Agent to the relevant Holder at its request.

If interest is payable in respect of a Variable Rate Note on the first day of an Interest Period relating to such Variable Rate Note, the Company will pay the Agreed Yield applicable to such Variable Rate Note for such Interest Period on the first day of such Interest Period. If interest is payable in respect of a Variable Rate Note on the last day of an Interest Period relating to such Variable Rate Note, the Company will pay the interest payable for such Variable Rate Note for such Interest Period on the last day of such Interest Period.

"Benchmark" means the rate specified as such in the applicable Pricing Supplement.

"Interest Commencement Date" means the Original Issue Date or such other date as may be specified as the Interest Commencement Date in the applicable Pricing Supplement.

"Interest Period" means the period beginning on the Interest Commencement Date and ending on the first Interest Payment Date and each successive period beginning on an Interest Payment Date and ending on the next succeeding Interest Payment Date.

"Relevant Dealer" means the Dealer party to the Program Agreement with whom the Company has concluded an agreement for the issue of such Variable Rate Note pursuant to the Program Agreement.

Indexed Notes

Notes may be issued, from time to time, with the principal amount payable on any principal payment date, or the amount of interest payable on any interest payment date, to be determined by reference to the value of one or more currency exchange rates, commodity prices, equity indices or other factors ("Indexed Notes"). Holders of such Notes may receive a principal amount on any principal payment date, or a payment of interest on any interest payment date, that is greater than or less than the amount of principal or interest that would otherwise be payable on such dates, depending upon the value on such dates of the applicable currency, commodity, equity index or other factor. Additional information as to the methods for determining the amount of principal or interest payable on any date, the currencies, commodities, equity indices or other factors to which the amount payable on such date is linked and certain additional tax considerations will be set forth in the applicable Pricing Supplement.

Amortizing Notes

Amortizing Notes are Fixed Rate Notes for which payments combining principal and interest are made in installments over the life of the Note ("Amortizing Notes"). Unless otherwise specified in the applicable Pricing Supplement, interest on each Amortizing Note will be computed on the basis of a 360-day year of twelve 30-day months. Payments with respect to Amortizing Notes will be applied first to interest due and payable thereon and then to the reduction of the unpaid principal amount thereof. Further information concerning additional terms and conditions of any issue of Amortizing Notes, as well as the tax consequences of that issue, will be provided in the applicable Pricing Supplement. A table setting forth repayment information in respect of each Amortizing Note will be included in the applicable Pricing Supplement and set forth on such Notes.

Optional Redemption

Except for Variable Rate Notes that are governed by Singapore law and unless otherwise specified in the applicable Pricing Supplement, the Company may, at its option at any time, redeem the Notes of a series prior to its Stated Maturity, in whole or in part, at an amount equal to the greater of (i) their Redemption Price and (ii) the Make Whole Amount (which is the amount determined by discounting the principal amount of the Notes plus all required remaining scheduled interest payments due on such Notes at a rate equal to (a) the yield of United States Treasury Notes of the same maturity plus (b) a spread specified in the applicable Pricing Supplement), in each case together with accrued but unpaid interest to (but excluding) the date of redemption. For the avoidance of doubt, the aforementioned reference to "United States Treasury Notes of the same maturity" refers to United States Treasury Notes having a maturity equal or most nearly equal to the period from the date of redemption to the Stated Maturity of such Notes (Indenture § 1109). Notice of such redemption will be given to each Holder of Notes to be redeemed not less than 30 nor more than 60 days prior to the date fixed for redemption (Indenture § 1104).

With respect to Variable Rate Notes that are governed by Singapore law, unless otherwise provided in the Pricing Supplement, the Company shall have the option to purchase all or any of the Variable Rate Notes at their Redemption Price on any date on which interest is due to be paid on such Notes and the Holders shall be bound to sell such Notes to the Company accordingly. To exercise such option, the Company shall give irrevocable notice to the Holders of such Notes within the Issuer's Purchase Option Period specified in the Pricing Supplement attached hereto.

Repayment at Holders' Option, Repurchase

Procedures, if any, relating to repayment of Notes at the option of the Holder thereof will be described in the applicable Pricing Supplement (Indenture § 301(g)).

The Company or the Guarantor may purchase Notes at any price in the open market or otherwise. Notes so purchased by the Company or the Guarantor may be held, resold or surrendered to the Trustee for cancellation.

Optional Tax Redemption

Unless otherwise provided in the applicable Pricing Supplement for Notes denominated in currencies other than Singapore dollars, if at any time the Company shall determine that as a result of a change in or amendment to the laws of the Relevant Taxing Jurisdiction affecting taxation, or any change in an application or interpretation of such laws, which change or amendment becomes effective on or after the Original Issue Date of a series of Notes or such other date specified in the applicable Pricing Supplement (the "Relevant Date") (1) in making any payment under the Indenture the Company would be required to pay additional amounts with respect thereto as a result of any taxes, levies, imposts or other governmental charges imposed (whether by way of withholding or deduction or otherwise) by or for the account of any Relevant Taxing Jurisdiction, or (2) as a result of any action taken by any taxing authority of, or any action brought in a court of competent jurisdiction in, any Relevant Taxing Jurisdiction (whether or not such action was taken or brought with respect to the Company), which action is taken or brought on or after the Relevant Date, there is a substantial probability that the circumstances described in clause (1) would exist, Notes may be redeemable as a whole at the option of the Company upon not less than 30 and not more than 60 days' notice given as provided in an Indenture at any time, at a Redemption Price equal to 100.0% of the principal amount thereof, together with any accrued interest to the date fixed for redemption (except in the case of Original Issue Discount Notes which may be redeemed at the Redemption Price specified in the applicable Pricing Supplement).

Prior to the publication of any notice of redemption, the Company is required to deliver to the Trustee (a) an opinion of independent tax counsel of recognized standing in the relevant jurisdiction or a copy of any judicial decision or regulatory determination or ruling, in each case to the effect that the Company would be required to pay Additional Amounts on the next payment in respect of such Notes as a result of a change or amendment described above and (b) an Officer's Certificate to the effect that, in the judgment of the Company, such obligation cannot be avoided by the Company taking reasonable measures available to it (Indenture § 1108).

The ability of a Successor Entity (as defined below) to exercise the rights of the Company under this provision is described under " — Consolidation, Merger and Sale of Assets".

Modification and Amendment

Modification and amendments of an Indenture may be made by the Company, the Guarantor and the Trustee without the consent of the Holders in certain instances or with the Act of Holders of not less than a majority in the principal amount of the Notes of each outstanding series affected by such modification or amendment, provided that no such modification or amendment may, without the consent of the holder of each such Note affected thereby, among other things: (a) change the Stated Maturity of principal of or any installment of principal of or interest, if any, on, or any sinking fund payment under, any such Note; (b) reduce the principal amount of, or any interest on, any such Note or any premium payable upon the redemption thereof or the amount of the principal of an Original Issue Discount Note that would be due and payable upon the acceleration of the maturity thereof or any sinking fund payment with respect thereto; (c) change the currency of payment of principal of, premium, if any, or interest, if any, on any such Note; (d) impair the right to institute suit for the enforcement of any such payment on any such Note; (e) reduce the above-stated percentage of holders of Notes of any series necessary to modify or amend the Indenture; (f) reduce the percentage of principal amount of outstanding Notes of any series necessary to waive any past default to less than a majority; (g) modify the foregoing requirements; (h) change in any manner adverse to the interests of the holders of outstanding Notes the terms and provisions of the Guarantee in respect of the due and punctual payment of the principal or and premium and interest on the Notes; or (i) change in any manner adverse to the interests of the holders of outstanding Notes issued under the Indenture the terms and provisions of the covenant described under " — Consolidation, Merger and Sale of Assets" (Indenture § 902).

Subject to the foregoing, the Indenture may be amended by the Company, the Guarantor and the Trustee, without the consent of the Holder of any Note, for, among others, the purpose of curing any ambiguity or to correct or supplement any provision contained therein which may be inconsistent with any other provision contained therein, provided such action shall not adversely affect the interests of the Holders of any series of Notes in any material respect (Indenture § 901(j)).

Negative Pledge

So long as any Notes, Receipts or Coupons are outstanding, the Company and the Guarantor will not, and the Guarantor will not permit any of its Principal Subsidiaries to, create or permit to exist any Lien on any property or assets of the Company, the Guarantor or (in the case of the Guarantor) any of its Principal Subsidiaries to secure any Capital Markets Indebtedness, or any guarantee or indemnity in respect of Capital Market Indebtedness, without also at the same time or prior thereto (a) securing its indebtedness under the Indenture so that the Notes, Receipts or Coupons then outstanding are secured equally and ratably with such Capital Markets Indebtedness or (b) providing the Notes that are outstanding with the benefit of other security as approved by the Holders of a majority in principal amount of each series of Notes that are outstanding, provided, however, that the foregoing restrictions shall not apply to:

(i) Liens on property or assets of an entity existing at such time the entity becomes a Principal Subsidiary, provided that such Liens were not created in anticipation of such entity becoming a Principal Subsidiary;

(ii) Liens created in connection with a substitution of property or assets (or a substitution of property or assets which itself was previously so substituted) pursuant to the terms of any agreement or arrangement pursuant to which any Lien referred to in the preceding clause (i), above was created;

(iii) Liens incurred by a Non-Recourse Subsidiary to secure Non-Recourse Indebtedness; or

(iv) Liens securing indebtedness refunding indebtedness secured by any Lien referred to in either clause (i) or (ii) above; provided that the principal amount of such indebtedness is not increased, the maturity of such indebtedness is not extended beyond the original maturity of the indebtedness so secured and the Lien is limited to the property or asset originally subject thereto and any improvements thereon.

"Capital Markets Indebtedness" means any indebtedness for money borrowed or interest thereon in the form of bonds, notes, debentures, loan stock or other similar securities that are, or are capable of being, quoted, listed or ordinarily dealt with in any stock exchange, over-the-counter or other securities market, having an original maturity of more than 365 days from its date of issue, or any guarantee or indemnity in respect of Capital Markets Indebtedness.

"Lien" means any mortgage, charge, pledge, lien or other form of encumbrance or security interest.

"Non-Recourse Indebtedness" means indebtedness to finance the ownership, acquisition, construction, creation, development and/or operation of property (the "Relevant Property") to be used by a Non-Recourse Subsidiary and incurred by such Non-Recourse Subsidiary within 90 days after its purchase of such Relevant Property; provided, that such indebtedness has no recourse whatsoever to the Guarantor or any Principal Subsidiary for the repayment of or payment of all or any portion of such indebtedness, and has no recourse whatsoever other than:

(a) recourse to such Non-Recourse Subsidiary limited to the Relevant Property and/or the income, cash flow or other property derived from the Relevant Property; or

(b) recourse to another Person (other than the Guarantor or any Principal Subsidiary) who has guaranteed or provided other security in respect of such indebtedness.

"Non-Recourse Subsidiary" means a Subsidiary of the Guarantor that (1) has not acquired or received any cash, property or other assets from the Guarantor or any other Subsidiary of the Guarantor, other than Permitted Company Contributions and (2) has no indebtedness other than Non-Recourse Indebtedness and Permitted Company Contributions.

"Permitted Company Contributions" means funding (in the form of cash, equity, debt or a combination of each), which together with all other Permitted Company Contributions made from time to time by the Guarantor to its Non-Recourse Subsidiaries, does not exceed in the aggregate 15.0% of the Guarantor's total consolidated net assets calculated by reference to the then latest audited consolidated accounts of the Guarantor.

"Person" means any individual, corporation, partnership, limited liability company, joint venture, association, joint-stock company, trust, unincorporated organization or government or any agency or political subdivision thereof.

"Principal Subsidiary" means the Company and any Subsidiary of the Guarantor (other than a Non-Recourse Subsidiary) (1) whose total net assets or total net profits (after deducting all charges except taxation and excluding extraordinary items) (or, where the Subsidiary in question itself has subsidiaries, calculated on a consolidated basis) represent not less than 15.0% of the Guarantor's total consolidated net assets or the Guarantor's total consolidated net profits (after deducting all charges except taxation and excluding extraordinary items), all as calculated by reference to the then latest audited accounts of each Subsidiary and its subsidiaries and the Guarantor's then latest audited consolidated accounts; or (2) to which is transferred the whole or substantially the whole of the assets and undertaking of a Subsidiary which immediately prior to such transfer was a Principal Subsidiary; provided, that (x) in the case of a Subsidiary of the Guarantor acquired after the end of the financial period to which the then latest relevant audited accounts relate, the reference to the then latest audited accounts for the purposes of the calculations above shall, until audited accounts for the financial period in which the acquisition is made are published, be deemed to be a reference to the accounts adjusted to consolidate the latest audited accounts of the Subsidiary in the accounts, (y) if, in

the case of a Subsidiary of the Guarantor which itself has one or more Subsidiaries, no consolidated accounts are prepared and audited, its consolidated net assets and consolidated total net operating profits shall be determined on the basis of pro forma consolidated accounts of the relevant Subsidiary and its Subsidiaries prepared for this purpose by its auditors; and (z) if the accounts of a Subsidiary of the Guarantor (not being a Subsidiary referred to in (x) above) are not consolidated with those of the Guarantor, then the determination of whether or not the Subsidiary of the Guarantor is a Principal Subsidiary shall, if the Guarantor requires, be based on a pro forma consolidation of its accounts (consolidated, if appropriate) with the consolidated accounts of the Guarantor and its Subsidiaries. A report by the Guarantor's independent public accountants or auditors that, in their opinion, a Subsidiary is or is not a Principal Subsidiary shall, in the absence of manifest error, be conclusive and binding on the Company, the Guarantor, the Trustee and the Holders.

"Subsidiary" means in relation to any Person and at any particular time, any form of entity (legal or not) of which more than 50.0% of the issued share capital (or its equivalent) is then beneficially owned by such Person and/or one or more of its Subsidiaries.

Consolidation, Merger and Sale of Assets

Each of the Company and the Guarantor may consolidate with or merge or amalgamate into, in each case, where the Company or the Guarantor (as the case may be) is not the surviving or resulting entity, or convey, transfer or sell, assign, or lease, in one transaction or a series of transactions, directly or indirectly, all or substantially all its assets to, or declare itself a trustee of all or substantially all of its assets for, any Person (a "Transfer Event"), but only so long as:

(a) the resulting, surviving or transferee Person (the "Successor Entity" and where the Company or the Guarantor (as the case may be) has declared itself a trustee as provided above, references to the Successor Entity below shall mean the Company or the Guarantor (as the case may be) acting in its capacity as such trustee) shall be a Person validly organized and existing under the laws of a Qualified Jurisdiction and the Successor Entity shall expressly assume by an indenture supplemental thereto, executed and delivered to the Trustee, in form satisfactory to the Trustee, all the obligations of the Company or the Guarantor (as the case may be) under the Notes and the Indenture;

(b) the Successor Entity shall expressly agree by an indenture supplemental to the Indenture, executed and delivered to the Trustee, in form satisfactory to the Trustee, that all payments pursuant to the Notes and Coupons or the Guarantee (as applicable) in respect of principal of and interest on Notes and Coupons shall be made without deduction or withholding for any and all present and future taxes, levies, imposts or other governmental charges whatsoever imposed, assessed, levied or collected by or for the account of Relevant Taxing Jurisdiction (as such term relates to the Successor Entity), unless such deduction or withholding of any such taxes, levies, imposts or other governmental charges shall at any time be required by the Relevant Taxing Jurisdiction (as such term relates to the Successor Entity), in which case, the Successor Entity shall pay such additional amounts in respect of any such principal, premium, interest or sinking fund payment (the "Successor Additional Amounts") as may be necessary in order that the net amounts paid to the Holders of such Notes or to the Trustee, as the case may be, pursuant to the Indenture and such Notes after such deduction or withholding shall equal the respective amounts of principal, premium, interest, or sinking fund payment as specified in such Notes, to which the Holders thereof or the Trustee would be entitled if no such deduction or withholding had been made, and provided that the Successor Entity shall not have the right to redeem the Notes pursuant to the provisions described under " — Optional Tax Redemption" in respect of such Successor Additional Amounts unless (A) the obligation to pay such Successor Additional Amounts arises as a result of any change in, or amendment to, the laws or regulations of the Relevant Taxing Jurisdiction (as such term relates to the Successor Entity), or any change in the general application or official interpretation of such laws or regulations, which change or amendment becomes effective after the date such Successor Entity assumes the obligations of the Company or the Guarantor (as the case may be) under the Indenture and the Notes, (B) such obligation to pay Successor Additional Amounts cannot be avoided by such Successor Entity taking reasonable measures available to it and (C) all other requirements contained in the Indenture related to the redemption of the Notes shall have been satisfied; provided, that,

notwithstanding the foregoing, in the case of Notes and Coupons denominated in Singapore dollars, the Successor Entity shall not be required to expressly agree to the matters in this subclause (b) if either (1) such Notes and Coupons assumed by the Successor Entity or issued by the Successor Entity in exchange, substitution or otherwise for such Notes and Coupons denominated in Singapore dollars shall immediately following the consummation of such Transfer Event qualify as "qualifying debt securities" (as defined in "Certain Tax Considerations — Singapore Taxation") or (2) immediately following the consummation of such Transfer Event, the Holders shall continue to receive payments on such Notes and Coupons denominated in Singapore dollars in amounts equal to or greater than the amounts immediately prior to the consummation of such Transfer Event;

(c) immediately after giving pro forma effect to such Transfer Event (and treating any indebtedness which becomes an obligation of the Successor Entity or any subsidiary of the Successor Entity as a result of such Transfer Event as having been incurred by such Successor Entity or such subsidiary of the Successor Entity at the time of such transaction), no Event of Default with respect to any of the Notes shall have occurred and be continuing;

(d) in the case of the Guarantor at the time of such Transfer Event, the Guarantor shall have taken all reasonable measures to ensure that the Group would, immediately following the consummation of such Transfer Event, possess all material licenses, permits and approvals required to conduct the business conducted by the Group immediately preceding the consummation of such Transfer Event and the Guarantor shall have no reason to believe that the Group shall not be able to conduct such business(es) following the consummation of such Transfer Event;

(e) the Company shall have delivered to the Trustee written reports from each of the Rating Agencies that (i) the ratings assigned by such Rating Agency to any of the Notes will not be lowered as a result of the Transfer Event and (ii) the rating of the Successor Entity to the Guarantor would not be lower than the rating of the Guarantor as a result of the Transfer Event; and

(f) the Company shall have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that such Transfer Event and such supplemental indenture or supplemental trust deed (if any) comply with the Indenture.

Except as provided above, each of the Company and the Guarantor may not consolidate with or merge or amalgamate into, in each case, where the Company or the Guarantor (as the case may be) is not the surviving or resulting entity, or convey, transfer or sell, assign, or lease, in one transaction or a series of transactions, directly or indirectly, all or substantially all its assets to, or declare itself a trustee of all or substantially all of its assets for, any Person. The Successor Entity will be the successor to the Company or the Guarantor (as the case may be) and shall succeed to, and be substituted for, and may exercise every right and power of, the Company or the Guarantor, as the case may be, under the Indenture, and the predecessor company, except in the case of a lease, shall be released from the obligation to pay the principal of and interest on the Notes (Indenture § 802).

"Qualified Jurisdiction" means the Republic of Singapore, the British Virgin Islands, Canada, the Cayman Islands, a member country of the European Union, Switzerland or the United States.

"Rating Agency" means Standard & Poor's Singapore Pte Ltd and Moody's Investors Service, Inc. or if Standard & Poor's Singapore Pte Ltd or Moody's Investors Service, Inc. or both shall not make a rating on the Notes of the Company publicly available, a nationally recognized statistical rating agency or agencies, as the case may be, selected by the Company (as certified by a resolution of the Board of Directors of the Company) which shall be substituted for Standard & Poor's Singapore Pte Ltd or Moody's Investors Service, Inc, or both, as the case may be.

Defeasance and Discharge

The Indenture provides that the Company and the Guarantor, at the Company's option, (a) will be discharged from any and all obligations in respect of the Notes issued thereunder (except for certain obligations to register the transfer of or exchange Notes, replace stolen, lost or mutilated Notes, and maintain issuing and paying agents and to hold certain moneys in trust for payment) or (b) need not comply with certain provisions of the Indenture if, in each case, the Company irrevocably deposits with the Trustee under the Indenture, in trust for the purpose of making the following payments for the benefit of Holders of Notes and Coupons: (1) an amount (in such currency in which such Notes and any Coupons then specified as payable at the Stated Maturity) or (2) Government Obligations applicable to such Notes and Coupons (determined on the basis of the currency in which such Notes and Coupons are then specified as payable at the Stated Maturity), which through the scheduled payment of principal and interest in respect thereof will provide not later than one day before the due date of any payment of principal of (and premium, if any) and interest, if any, on such Notes and any Coupons, money in an amount sufficient, in the opinion of an internationally recognized accounting firm that is independent to the Company and the Guarantor, to pay all the principal (including sinking fund payments) of and premium and interest on such Notes on the dates such principal, premium and interest is due in accordance with the terms of such Notes. In the case of a discharge described in clause (a) above with respect to Notes issued pursuant to Rule 144A, the Company is required to deliver to the Trustee under the Indenture prior to such discharge either (X) an Opinion of Counsel to the effect that beneficial owners of Notes will not recognize income, gain or loss for U.S. federal or Singapore income tax purposes as a result of such deposit and related defeasance and will be subject to U.S. federal income tax on the same amount, in the same manner and at the same times as would have been the case if such deposits and related defeasance had not been exercised, which Opinion of Counsel must be based on a change in applicable U.S. federal income tax law or (Y) a ruling to such effect received from or published by the United States Internal Revenue Service ("IRS") to the same effect (Indenture § 1401). In the case of a discharge described in clause (b) above, the Company is required to deliver to the Trustee under the Indenture prior to such discharge an Opinion of Counsel to the effect that such beneficial owners of Notes will not recognise income, gain or loss for U.S. federal income tax purposes as a result of such deposit and related defeasance and will be subject to U.S. federal income tax on the same amount, in the same manner and at the same times as would have been the case if such deposits and related defeasance had not been exercised.

Governing Law

Notes will be governed by, and construed in accordance with, the laws of the Republic of Singapore or the laws of the State of New York, as specified in the applicable Pricing Supplement.

Concerning the Trustee

The Bank of New York Mellon is the Trustee under the Indenture. The Company maintains an account and conducts other banking transactions with the Trustee in the ordinary course of its business.

Consent to Service of Process

The Indenture provides that each of the Company and the Guarantor will irrevocably designate and appoint CT Corporation System, located at 111 Eighth Avenue, New York, New York 10011, as its authorized agent for service of process in any legal action or proceeding arising out of or relating to the Indenture or Notes governed by the laws of the State of New York issued thereunder brought in any federal or state court in the City of New York or brought under federal or state securities laws or brought by the Trustee (whether in its individual capacity or in its capacity as the Trustee) and, in each case, will irrevocably submit to the non-exclusive jurisdiction of such courts in any such suit or proceeding arising out of or relating to any such Notes or Guarantee thereof (Indenture § 114).

FORM OF THE NOTES

The Notes of each series will be in bearer or in registered form as specified in the relevant Pricing Supplement.

Unless otherwise provided with respect to a particular series of Registered Notes, Registered Notes of each series sold outside the United States in reliance on Regulation S will be represented by interests in a global unrestricted Registered Note, without coupons (a "Regulation S Global Note"), which may be deposited with CDP, or a common depositary for, and registered in the name of a nominee of, Euroclear and Clearstream, or with a custodian for, and registered in the name of a nominee of, DTC, for the accounts of Euroclear and Clearstream. With respect to all offers or sales by a Dealer of an unsold allotment or subscription and in any case prior to expiry of the period that ends 40 days after the later of the date of issue and distribution of each series of Notes, as certified by the relevant Dealer, in the case of a non-syndicated issue, or the Lead Manager, in the case of a syndicated issue (the "Distribution Compliance Period"), beneficial interests in a Regulation S Global Note may not be offered or sold to, or for the account or benefit of, a U.S. person (unless pursuant to the Securities Act or an exemption therefrom) and may be held only through CDP, Euroclear, Clearstream and DTC, for the accounts of Euroclear and Clearstream, as the case may be. Regulation S Global Notes will be exchangeable for Definitive Registered Notes only in limited circumstances as more fully described in "Annex B — Global Clearance and Settlement".

Registered Notes of each series may only be offered and sold in the United States or to U.S. persons in private transactions: (i) to QIBs or (ii) to institutional "accredited investors" (as defined in Regulation D) who agree to purchase the Notes for their own account and not with a view to the distribution thereof. Registered Notes of each series sold in private transactions to QIBs pursuant to Rule 144A will be represented by a restricted permanent global note in registered form, without interest coupons (a "Restricted Global Note" and, together with a Regulation S Global Note, "Registered Global Notes"), deposited with a custodian for, and registered in the name of a nominee of, DTC.

Registered Notes of each series sold to Institutional Accredited Investors will be in definitive form, registered in the name of the holder thereof. Definitive Registered Notes will, at the request of the holder (except to the extent otherwise indicated in the applicable Pricing Supplement), be issued in exchange for interests in a Registered Global Note upon compliance with the procedures for exchange as described in the Indenture.

Each series of Bearer Notes may be represented either by a temporary global note (a "Temporary Global Note") or a permanent global note (a "Permanent Global Note") that will be deposited on the issue date thereof with CDP or a common depositary on behalf of Euroclear and Clearstream or any other agreed clearance system compatible with Euroclear and Clearstream. Bearer Notes issued in compliance with TEFRA D must be initially issued in the form of a Temporary Global Note. Beneficial interests in a Temporary Global Note will be exchangeable for interests in a Permanent Global Note in accordance with the terms thereof. Each Permanent Global Note may be exchanged for Definitive Bearer Notes only in the limited circumstances as described therein.

While any Bearer Note issued under TEFRA D is represented by a Temporary Global Note, payments of principal and interest (if any) due prior to 40 days after the Issue Date (the "Exchange Date") will be made against presentation of the Temporary Global Note only to the extent that certification (in a form to be provided) to the effect that the beneficial owner of such Note is not a U.S. person (as defined in the Internal Revenue Code) or a person who has purchased for resale to any U.S. person or to a person within the United States, as required by TEFRA D, has been received by Euroclear, Clearstream and/or CDP and/or any other such depositary, as applicable and such clearing agent or depositary, as the case may be, has given a like certification (based on the certifications it has received) to the Trustee or Issuing and Paying Agent.

From the Exchange Date, interests in such Temporary Global Note will be exchangeable (free of charge) upon a request as described therein either for interests in a Permanent Global Note without Receipts, interest Coupons or Talons or for Definitive Bearer Notes with, where applicable, Receipts, interest Coupons or Talons attached (as indicated in the applicable Pricing Supplement and subject, in the case of Definitive Bearer Notes, to such notice period as is specified in the applicable Pricing Supplement) in each case against certification of beneficial ownership as described in the immediately preceding paragraph unless such certification has already been given. The holder of a Temporary Global Note will not be entitled to collect any payment of interest or principal due on or after the Exchange Date unless exchange is improperly refused after such holder duly makes an exchange request.

The following legend will appear on all Bearer Global Notes, Definitive Bearer Notes, receipts, interest coupons and talons (or in the book or record where the Bearer Notes are held in book-entry form):

"Any United States person who holds this obligation will be subject to limitations under the United States income tax laws, including the limitations provided in Sections 165(j) and 1287(a) of the Internal Revenue Code."

Sections 165(j) and 1287(a) of the Internal Revenue Code, provide that U.S. beneficial owners, with certain exceptions, will not be entitled to deduct any loss on Bearer Notes, Receipts, interest Coupons or Talons and will not be entitled to capital gains treatment of any gain on any sale, disposition, redemption or payment of principal in respect of Bearer Notes, Receipts, interest Coupons or Talons.

Bearer Notes shall be assigned a Common Code and a relevant ISIN (as applicable). Registered Notes will be assigned (as applicable) a Common Code, ISIN and CUSIP number. If a further series of Notes is issued the Trustee shall arrange that the Notes of such series shall be assigned (as applicable) a CUSIP number, Common Code and a relevant ISIN that are different from the CUSIP number, Common Code and relevant ISIN, as the case may be, assigned to Notes of any other series until the end of the Distribution Compliance Period and, for Bearer Notes issued under TEFRA D, until (x) exchange of interests in a Temporary Global Note for interests in a Permanent Global Note or for definitive Notes and (y) certification of non-U.S. beneficial ownership in accordance with TEFRA D. At the end of the Distribution Compliance Period, the CUSIP number, Common Code and relevant ISIN, as the case may be, thereafter applicable to the Notes of the relevant series will be notified by the Trustee to the relevant Dealers.

All Notes will be issued pursuant to the Indenture or the Supplemental Trust Deed.

No beneficial owner of an interest in a Registered Global Note will be able to exchange or transfer that interest, except in accordance with the applicable procedures of DTC, Euroclear, Clearstream and/or CDP, in each case, to the extent applicable.

CERTAIN TAX CONSIDERATIONS

The statements below are general in nature and are based on certain aspects of current tax laws in Singapore and the U.S. federal income tax laws, as well as certain European tax considerations, and administrative guidelines and circulars issued by the MAS in force as at the date of this Offering Circular and are subject to any changes in such laws, administrative guidelines or circulars, or the interpretation of those laws, guidelines or circulars, occurring after such date, which changes could be made on a retroactive basis. These laws, guidelines or circulars are also subject to various interpretations and the relevant tax authorities or the courts could disagree with the explanations or conclusions set out below. Neither these statements nor any other statements in this Offering Circular are intended or are to be regarded as advice on the tax position of any holder of the Notes or of any person acquiring, selling or otherwise dealing with the Notes or on any tax implications arising from the acquisition, sale or other dealings in respect of the Notes and should be treated with appropriate caution. The statements made herein do not purport to be a comprehensive or exhaustive description of all the tax considerations that may be relevant to a decision to subscribe for, purchase, own or dispose of the Notes and do not purport to deal with the tax consequences applicable to all categories of investors, some of which (such as dealers in securities or financial institutions in Singapore which have been granted the relevant Financial Sector Incentive(s)) may be subject to special rules or tax rates. Prospective Noteholders are advised to consult their own professional tax advisers as to the Singapore and U.S. federal income tax laws or other tax consequences of the acquisition, ownership or disposal of the Notes, including the effect of any foreign, state or local tax laws to which they are subject. Neither the Issuer, SP, the Arrangers nor any other persons involved in the Program accept responsibility for any tax effects or liabilities resulting from the subscription, purchase, holding or disposal of the Notes.

Singapore Taxation

Interest and Other Payments

Subject to the following paragraphs, under Section 12(6) of the Income Tax Act, Chapter 134 of Singapore (the "ITA"), the following payments are deemed to be derived from Singapore:

(a) any interest, commission, fee or any other payment in connection with any loan or indebtedness or with any arrangement, management, guarantee, or service relating to any loan or indebtedness which is (i) borne, directly or indirectly, by a person resident in Singapore or a permanent establishment in Singapore (except in respect of any business carried on outside Singapore through a permanent establishment outside Singapore or any immovable property situated outside Singapore) or (ii) deductible against any income accruing in or derived from Singapore; or;

(b) any income derived from loans where the funds provided by such loans are brought into or used in Singapore.

Further, such payments, where made to a person not known to be a resident in Singapore for tax purposes, are generally subject to withholding tax in Singapore. The rate at which tax is to be withheld for such payments (other than those subject to the 15.0% withholding tax described below) to non-resident persons (other than non-resident individuals) is 17.0%. The applicable rate for non-resident individuals is 22.0%. However, if the payment is derived by a person not resident in Singapore from sources other than its trade, business, profession or vocation carried on or exercised in Singapore and is not effectively connected with any permanent establishment in Singapore of that person, the withholding tax rate is 15.0%. The rate of 15.0% may be reduced by applicable tax treaties.

Certain Singapore-sourced investment income derived by individuals from financial instruments is exempt from tax, including:

(a) interest from debt securities derived on or after January 1, 2004;

(b) discount income (not including discount income arising from secondary trading) from debt securities derived on or after February 17, 2006; and

(c) prepayment fee, redemption premium or break cost from debt securities derived on or after February 15, 2007,

except where such income is derived through a partnership in Singapore or is derived from the carrying on of a trade, business or profession in Singapore.

As the Program is arranged as a whole by DBS Bank Ltd., Deutsche Bank AG, Singapore Branch and Morgan Stanley Asia (Singapore) Pte. and each of which is a Financial Sector Incentive (Bond Market) Company, Financial Sector Incentive (Capital Market) Company or Financial Sector Incentive (Standard-Tier) Company (as defined in the ITA) at such time, any tranche of the Notes ("Relevant Notes") issued under the Program during the period from the date of this Offering Circular to December 31, 2023 would be, pursuant to the ITA and the MAS Circular FDD Cir 11/2018 entitled "Extension of Tax Concessions for Promoting the Debt Market" issued by MAS on May 31, 2018 (the "MAS Circular"), "qualifying debt securities" ("QDS") for the purposes of the ITA, to which the following treatments shall apply:

(a) subject to certain conditions having been fulfilled (including the submission by the Issuer, or such other person as the MAS may direct, to the MAS of a return on debt securities in respect of the Relevant Notes in the prescribed format within such period as the MAS may specify and such other particulars in connection with the Relevant Notes as the MAS may require and the inclusion by the Issuer in all offering documents relating to the Relevant Notes of a statement to the effect that where interest, discount income, break cost, prepayment fee and redemption premium from the Relevant Notes is derived by a person who is not resident in Singapore and who carries on any operation in Singapore through a permanent establishment in Singapore, the tax exemption for qualifying debt securities shall not apply if the non-resident person acquires the Relevant Notes using the funds and profits of such person's operations through the Singapore permanent establishment), interest, discount income (excluding discount income from secondary trading), break cost, prepayment fee and redemption premium (collectively, the "Qualifying Income") from the Relevant Notes paid by the Issuer and derived by a holder who is not resident in Singapore and who (i) does not have any permanent establishment in Singapore or (ii) carries on any operation in Singapore through a permanent establishment in Singapore but the funds used by that person to acquire the Relevant Notes are not obtained from such operation in Singapore, is exempt from Singapore tax.;

(b) subject to certain conditions having been fulfilled (including the submission by the Issuer, or such other person as the MAS may direct, to the MAS of a return on debt securities in respect of the Relevant Notes in the prescribed format within such period as the MAS may specify and such other particulars in connection with the Relevant Notes as the MAS may require), Qualifying Income from the Relevant Notes derived by any company or body of persons (as defined in the ITA) in Singapore is subject to tax at a concessionary rate of 10.0% (except for holders of the relevant Financial Sector Incentive(s) who may be taxed at different rates); and

(c) subject to:

(i) the Issuer including in all offering documents relating to the Relevant Notes a statement to the effect that any person whose interest, discount income, break cost, prepayment fee or redemption premium derived from the Relevant Notes is not exempt from tax shall include such income in a return of income made under the ITA; and

(ii) the submission by the Issuer, or such other person as the MAS may direct, to the MAS of a return on debt securities in respect of the Relevant Notes in the prescribed format within such period as the MAS may specify and such other particulars in connection with the Relevant Notes as the MAS may require,

payments of Qualifying Income derived from the Relevant Notes are not subject to withholding of tax by the Issuer.

Notwithstanding the foregoing:

(a) if during the primary launch of any tranche of the Relevant Notes, the Relevant Notes of such tranche are issued to fewer than four persons and 50.0% or more of the issue of such Relevant Notes is beneficially held or funded, directly or indirectly, by related parties of the Issuer, such Relevant Notes would not qualify as QDS; and

(b) even though a particular tranche of the Relevant Notes are QDS, if, at any time during the tenure of such tranche of the Relevant Notes, 50.0% or more of such Relevant Notes which are outstanding at any time during the life of their issue is beneficially held or funded, directly or indirectly, by any related parties of the Issuer, Qualifying Income derived from such Relevant Notes held by:

(i) any related party of the Issuer; or

(ii) any other person where the funds used by such person to acquire such Relevant Notes are obtained, directly or indirectly, from any related party of the Issuer,

shall not be eligible for the tax exemption or concessionary rate of tax described above.

The term "related party" in relation to a person, means any other person who, directly or indirectly, controls that person, or is controlled, directly or indirectly, by that person, or where he and that other person, directly or indirectly, are under the control of a common person.

The terms "break cost", "prepayment fee" and "redemption premium" are defined in the ITA as follows:

"break cost", in relation to debt securities and qualifying debt securities, means any fee payable by the issuer of the securities on the early redemption of the securities, the amount of which is determined by any loss or liability incurred by the holder of the securities in connection with such redemption;

"prepayment fee", in relation to debt securities and qualifying debt securities, means any fee payable by the issuer of the securities on the early redemption of the securities, the amount of which is determined by the terms of the issuance of the securities; and

"redemption premium", in relation to debt securities and qualifying debt securities, means any premium payable by the issuer of the securities on the redemption of the securities upon their maturity.

References to "break cost", "prepayment fee" and "redemption premium" in this Singapore tax disclosure have their same meaning as in the ITA.

Where interest, discount income, prepayment fee, redemption premium or break cost (i.e. the Qualifying Income) is derived from the Relevant Notes by any person who is not resident in Singapore and who carries on any operations in Singapore through a permanent establishment in Singapore, the tax exemption available for QDS under the ITA (as mentioned above) shall not apply if such person acquires such Relevant Notes using the funds and profits of such person's operations through a permanent establishment in Singapore. Any person whose interest, discount income, break cost, prepayment fee and redemption premium (i.e. the Qualifying Income) derived from the Relevant Notes is not exempt from tax is required under the ITA to include such income in a return of income made under the ITA.

Under the Qualifying Debt Securities Plus Scheme ("QDS Plus Scheme"), subject to certain conditions having been fulfilled (including the submission by the issuer, or such other person as the MAS may direct, to the MAS of a return on debt securities in respect of the QDS in the prescribed format within such period as the MAS may specify and such other particulars in connection with the QDS as the MAS may require), income tax exemption is granted on Qualifying Income derived by any investor from QDS (excluding Singapore Government Securities) which:

(a) are issued during the period from February 16, 2008 to December 31, 2018;

(b) have an original maturity of not less than 10 years;

(c) cannot have their tenure shortened to less than 10 years from the date of their issue, except where:

(i) the shortening of the tenure is a result of any early termination pursuant to certain specified early termination clauses which the issuer included in any offering document for such QDS; and

(ii) the QDS do not contain any call, put, conversion, exchange or similar option that can be triggered at specified dates or at specified prices which have been priced into the value of the QDS at the time of their issue; and

(d) cannot be re-opened with a resulting tenure of less than 10 years to the original maturity date.

However, even if a particular tranche of Relevant Notes qualifies under the QDS Plus Scheme, if, at any time during the tenure of such tranche of Relevant Notes, 50.0% or more of such Relevant Notes which are outstanding at any time during the life of their issue is beneficially held or funded, directly or indirectly, by any related party(ies) of the Issuer, Qualifying Income from such Relevant Notes derived by:

(i) any related party of the Issuer; or

(ii) any other person where the funds used by such person to acquire such Relevant Notes are obtained, directly or indirectly, from any related party of the Issuer,

shall not be eligible for the tax exemption under the QDS Plus Scheme as described above.

Pursuant to the Singapore Budget Statement 2018 and the MAS Circular, the QDS Plus Scheme will be allowed to lapse after December 31, 2018, but debt securities with tenures of at least 10 years which are issued on or before December 31, 2018 can continue to enjoy the tax concessions under the QDS Plus Scheme if the conditions of such scheme as set out above are satisfied.

Capital Gains

Any gains considered to be in the nature of capital made from the sale of the Notes will not be taxable in Singapore. However, any gains derived by any person from the sale of the Notes which are gains from any trade, business, profession or vocation carried on by that person, if accruing in or derived from Singapore, may be taxable as such gains are considered revenue in nature.

Holders of the Notes who adopt Singapore Financial Reporting Standard ("FRS") 39 or FRS 109, may for Singapore income tax purposes be required to recognize gains or losses (not being gains or losses in the nature of capital) on the Notes, irrespective of disposal, in accordance with FRS 39 or FRS 109. See the section below on "Adoption of FRS 39 and FRS 109 for Singapore Income Tax Purposes".

Adoption of FRS 39 and FRS 109 for Singapore Income Tax Purposes

Section 34A of the ITA provides for the tax treatment for financial instruments in accordance with FRS 39 (subject to certain exceptions and "opt-out" provisions) to taxpayers who are required to comply with FRS 39 for financial reporting purposes. The Inland Revenue Authority of Singapore has also issued a circular entitled "Income Tax Implications Arising from the Adoption of FRS 39 — Financial Instruments: Recognition and Measurement".

FRS 109 is mandatorily effective for annual periods beginning on or after January 1, 2018, replacing FRS 39. Section 34AA of the ITA requires taxpayers who comply or who are required to comply with FRS 109 for financial reporting purposes to calculate their profit, loss or expense for Singapore income tax purposes in respect of financial instruments in accordance with FRS 109, subject to certain exceptions. The Inland Revenue Authority of Singapore has also issued a circular entitled "Income Tax: Income Tax Treatment Arising from Adoption of FRS 109 — Financial Instruments".

Holders of the Notes who may be subject to the tax treatment under Sections 34A or 34AA of the ITA should consult their own accounting and tax advisors regarding the Singapore income tax consequences of their acquisition, holding or disposal of the Notes.

Estate Duty

Singapore estate duty has been abolished with respect to all deaths occurring on or after February 15, 2008.

United States Federal Income Taxation

The following is a summary of certain U.S. federal income tax consequences of the acquisition, ownership and disposition of Notes by a U.S. Holder (as defined below). This summary does not address the material U.S. federal income tax consequences of every type of Note which may be issued under the Program, and the relevant Pricing Supplement will contain additional or modified disclosure concerning the material U.S. federal income tax consequences relevant to such type of Note as appropriate. This summary deals only with U.S. Holders that will hold the Notes as capital assets. The discussion does not cover all aspects of U.S. federal income taxation such as the Medicare contribution tax on net investment income that may be relevant to, or the actual tax effect that any of the matters described herein will have on, the acquisition, ownership or disposition of Notes by particular investors, and does not address state, local, non-U.S. or tax laws other than U.S. federal income tax law. In particular, this summary does not discuss all of the tax considerations that may be relevant to certain types of investors subject to special treatment under the U.S. federal income tax laws (such as partnerships or other pass-through entities, financial institutions, insurance companies, investors liable for the alternative minimum tax, investors subject to special tax accounting rules as a result of any item of gross income with respect to the Notes being taken into account in an applicable financial statement, individual retirement accounts and other tax-deferred accounts, tax-exempt organizations, dealers in securities or currencies, investors that will hold the Notes as part of straddles, wash sales, hedging transactions or conversion transactions for U.S. federal income tax purposes, U.S. Holders whose functional currency is not the U.S. dollar or persons holding Notes in connection with a trade or business conducted outside the United States).

Moreover, this summary deals only with Notes with a term of 30 years or less. The U.S. federal income tax consequences of owning Notes with a longer term will be discussed in the relevant Pricing Supplement.

The following summary does not discuss Notes that are characterized as contingent payment debt instruments for U.S. federal income tax purposes. In the event the Issuer issues contingent payment debt instruments, the relevant Pricing Supplement will describe the material U.S. federal income tax consequences thereof.

As used herein, the term "U.S. Holder" means a beneficial owner of Notes that is, for U.S. federal income tax purposes, (i) a citizen or individual resident of the United States, (ii) a corporation, or other entity treated as a corporation, created or organized under the laws of the United States, any State thereof or the District of Columbia, (iii) an estate the income of which is subject to U.S. federal income tax without regard to its source or (iv) a trust if a U.S. court can exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust, or the trust has elected to be treated as a domestic trust for U.S. federal income tax purposes.

If an entity or arrangement treated as a partnership for U.S. federal income tax purposes holds Notes, the U.S. federal income tax treatment of a partner generally will depend on the status of the partner and the activities of the partnership. A U.S. Holder that is an entity treated as a partnership for U.S. federal income tax purposes holding Notes should consult its own tax advisors concerning the U.S. federal income tax consequences to its partners of the acquisition, ownership and disposition of Notes by the partnership.

This summary is based on the tax laws of the United States including the United States Internal Revenue Code of 1986, as amended (the "Code"), its legislative history, existing and proposed Treasury Regulations thereunder, published rulings and court decisions, all as currently in effect and all subject to change at any time, possibly with retroactive effect.

This section only addresses Notes in registered form. Bearer Notes are not being offered to U.S. Holders. A U.S. Holder who owns a Bearer Note may be subject to limitations under United States income tax laws, including the limitations provided in sections 165(j) and 1287(a) of the Code.

THE SUMMARY OF U.S. FEDERAL INCOME TAX CONSEQUENCES SET OUT BELOW IS FOR GENERAL INFORMATION ONLY. PROSPECTIVE PURCHASERS SHOULD CONSULT THEIR TAX ADVISORS AS TO THE PARTICULAR TAX CONSEQUENCES TO THEM OF OWNING THE NOTES, INCLUDING THE APPLICABILITY AND EFFECT OF STATE, LOCAL, NON-U.S. AND OTHER TAX LAWS AND POSSIBLE CHANGES IN TAX LAW.

Characterization of the Notes

Whether a note is treated as debt (and not equity) for U.S. federal income tax purposes is an inherently factual question and no single factor is determinative. Except as set forth in the applicable Pricing Supplement, the Issuer believes that the Notes will be treated as indebtedness for U.S. federal income tax purposes, although no opinions have been sought, and no assurances can be given, with respect to such treatment. The following discussion assumes that such treatment will be respected.

Payments of Interest

Interest on a Note, whether payable in U.S. dollars or a currency, composite currency or basket of currencies other than U.S. dollars (a "foreign currency"), other than interest on a "Discount Note" that is not "qualified stated interest" (each as defined below under " — Original Issue Discount — General"), will be taxable to a U.S. Holder as ordinary income at the time it is received or accrued, depending on the U.S. Holder's method of accounting for U.S. federal income tax purposes. Interest paid by the Issuer on the Notes and original issue discount, if any, accrued with respect to the Notes (as described below under "Original Issue Discount") and any additional amounts paid with respect to withholding tax on the Notes, including withholding tax on payments of such additional amounts will constitute income from sources outside the United States for foreign tax credit purposes.

Effect of Singaporean Withholding Taxes

As discussed in " — Singapore taxation", under current law Qualifying Income derived from the Relevant Notes is not subject to withholding tax by the Issuer, provided certain conditions are satisfied. However, in other cases payments of interest in respect of the Notes may be subject to Singapore withholding taxes. As discussed under "Description of the Notes — Payments of Additional Amounts", the Issuer may become liable for the payment of Additional Amounts to U.S. Holders so that, subject to certain exceptions, U.S. Holders receive the same amounts they would have received had no Singapore withholding taxes been imposed. For U.S. federal income tax purposes, U.S. Holders will be treated as having actually received the amount of any Singapore taxes withheld by the Issuer with respect to a Note, includable in such U.S. Holder's income at the time such amount is received or accrued in accordance with such U.S. Holder's method of U.S. federal income tax accounting, and as then having actually paid over the withheld taxes to the Singapore taxing authorities. As a result of this rule, the amount of interest income (including Additional Amounts, if any) included in gross income for U.S. federal income tax purposes by a U.S. Holder with respect to a payment of interest may be greater than the amount of cash actually received (or receivable) by the U.S. Holder from the Issuer with respect to the payment.

Subject to certain limitations, a U.S. Holder will generally be entitled to a credit against its U.S. federal income tax liability, or a deduction in computing its U.S. federal taxable income, for Singapore income taxes withheld by the Issuer (paid at the rate applicable to a U.S. Holder). Interest and OID will constitute foreign source income. For purposes of the foreign tax credit limitation, foreign source income is classified as belonging to a specified "basket", and the credit for foreign taxes on income in any basket is limited to U.S. federal income tax allocable to that basket. Interest on the Notes will generally be passive category income. In certain circumstances, a U.S. Holder may be unable to claim foreign tax credits (but may be allowed deductions) for Singapore taxes imposed on a payment of interest if the U.S. Holder has not met certain holding period requirements. Since a U.S. Holder may be required to include OID on the Notes in its gross income in advance of any withholding of Singapore income taxes from payments attributable to the OID

(which would generally occur when the Note is repaid or redeemed), a U.S. Holder may not be entitled to a credit or deduction for these Singapore income taxes in the year the OID is included in the U.S. Holder's gross income, and may be limited in its ability to credit or deduct in full the Singapore taxes in the year those taxes are actually withheld by the Issuer. Prospective purchasers should consult their tax advisors concerning the foreign tax credit implications of the payment of any Singapore taxes.

Original Issue Discount

General. The following is a summary of certain U.S. federal income tax consequences of the ownership of Notes issued with original issue discount ("OID").

A Note, other than a Note with a term of one year or less (a "Short-Term Note"), will be treated as issued with OID (a "Discount Note") if the amount by which the Note's "stated redemption price at maturity" exceeds its issue price is equal to or greater than a *de minimis* amount (0.25% of the Note's stated redemption price at maturity multiplied by the number of complete years to its maturity). A Note that provides for the payment of amounts other than qualified stated interest before maturity (an "installment obligation") will be treated as a Discount Note if the excess of the Note's stated redemption price at maturity over its issue price is equal to or greater than 0.25% of the Note's stated redemption price at maturity multiplied by the weighted average maturity of the Note. A Note's weighted average maturity is the sum of the following amounts determined for each payment on a Note (other than a payment of qualified stated interest): (i) the number of complete years from the issue date until the payment is made multiplied by (ii) a fraction, the numerator of which is the amount of the payment and the denominator of which is the Note's stated redemption price at maturity. Generally, the issue price of a Note will be the first price at which a substantial amount of Notes included in the issue of which the Note is a part is sold to persons other than bond houses, brokers, or similar persons or organizations acting in the capacity of underwriters, placement agents, or wholesalers. The stated redemption price at maturity of a Note is the total of all payments provided by the Note that are not payments of "qualified stated interest". A qualified stated interest payment is generally any one of a series of stated interest payments on a Note that are unconditionally payable in cash or in property (other than debt instruments of the issuer) at least annually at a single fixed rate (with certain exceptions for different rates that take into account different compounding periods), or a variable rate (in the circumstances described below under "Variable Interest Rate Notes"), applied to the outstanding principal amount of the Note. Solely for the purposes of determining whether a Note has OID, the Issuer will be deemed to exercise any unconditional call option that has the effect of decreasing the yield on the Note, and the U.S. Holder will be deemed to exercise any unconditional put option that has the effect of increasing the yield on the Note.

U.S. Holders of Discount Notes (regardless of their method of accounting) must include OID in income as it accrues, using a constant-yield method generally before the receipt of cash attributable to the income, and generally will have to include in income increasingly greater amounts of OID over the life of the Discount Notes. The amount of OID includible in income by a U.S. Holder of a Discount Note is the sum of the daily portions of OID with respect to the Discount Note for each day during the taxable year or portion of the taxable year on which the U.S. Holder holds the Discount Note ("accrued OID"). The daily portion is determined by allocating to each day in any "accrual period" a pro rata portion of the OID allocable to that accrual period. Accrual periods with respect to a Discount Note may be of any length and may vary in length over the term of the Discount Note as long as (i) no accrual period is longer than one year and (ii) each scheduled payment of interest or principal on the Discount Note occurs on either the first or final day of an accrual period. The amount of OID allocable to an accrual period equals the excess of (a) the product of the Discount Note's adjusted issue price at the beginning of the accrual period and the Discount Note's yield to maturity (determined on the basis of compounding at the close of each accrual period and properly adjusted for the length of each accrual period) over (b) the sum of the payments of qualified stated interest on the Discount Note allocable to the accrual period. The "adjusted issue price" of a Discount Note at the beginning of any accrual period is the issue price of the Discount Note increased by (x) the amount of accrued OID for each prior accrual period and decreased by (y) the amount of any payments previously made on the Discount Note that were not qualified stated interest payments.

The amount of OID allocable to the final accrual period is equal to the difference between: (i) the amount payable at the maturity of a Note, other than any payment of qualified stated interest, and (ii) the Note's adjusted issue price as of the beginning of the final accrual period.

Acquisition Premium. A U.S. Holder that purchases a Discount Note for an amount less than or equal to the sum of all amounts, other than qualified stated interest, payable on the Discount Note after the purchase date, but in excess of its adjusted issue price (any such excess being "acquisition premium") and that does not make the election described below under "Election to Treat All Interest as Original Issue Discount," is permitted to reduce the daily portions of OID by a fraction equal to the excess of the U.S. Holder's adjusted basis in the Discount Note immediately after its purchase over the Note's adjusted issue price divided by the excess of the sum of all amounts payable on the Discount Note after the purchase date, other than payments of qualified stated interest, over the Discount Note's adjusted issue price.

Election to Treat All Interest as Original Issue Discount. A U.S. Holder may elect to include in gross income all interest that accrues on a Note using the constant-yield method described above under " — General," with certain modifications. For purposes of this election, interest includes stated interest, acquisition discount OID, *de minimis* OID, market discount, *de minimis* market discount and unstated interest, as adjusted by any amortizable bond premium (described below under " — Notes Purchased at a Premium") or acquisition premium. Generally, this election will apply only to the Note with respect to which it is made and may not be revoked without the consent of the IRS. If this election is made with respect to a Note that has amortizable bond premium, the electing U.S. Holder will be treated as having made the election discussed below under " — Notes purchased at a premium" to apply amortizable bond premium against interest for all debt instruments with amortizable bond premium, other than debt instruments the interests on which is excludible from gross income, that the U.S. Holder held as of the beginning of the taxable year to which the election applies or acquired in any taxable year thereafter. If this election is made with respect to a Market Discount Note (as defined below), the electing U.S. Holder will be treated as having made the election discussed below under "Market Discount" to include market discount in income currently over the life of all debt instruments having market discount that are acquired on or after the first day of the first taxable year to which the election applies. U.S. Holders should consult their tax advisors concerning the propriety and consequences of this election.

Variable Interest Rate Notes. It is expected that Notes that provide for interest at variable rates ("Variable Interest Rate Notes") generally will bear interest at a "qualified floating rate" (defined below) and thus will be treated as "variable rate debt instruments" under Treasury Regulations governing accrual of OID. A Variable Interest Rate Note will qualify as a "variable rate debt instrument" if (a) its issue price does not exceed the total non-contingent principal payments by more than an amount equal to the lesser of (x) .015 multiplied by the product of the total non-contingent principal payments and the number of complete years to maturity from the issue date, or (y) 15 percent of the total non-contingent principal payments, (b) it provides for stated interest, compounded or paid at least annually, only at (i) one or more qualified floating rates, (ii) a single fixed rate and one or more qualified floating rates, (iii) a single objective rate (defined below), or (iv) a single fixed rate and a single objective rate that is a qualified inverse floating rate, and (c) it does not provide for any principal payments that are contingent (other than as described in (a) above). A qualified floating rate or objective rate in effect at any time during the term of the instrument must be set at a "current value" of that rate. A "current value" of a rate is the value of the rate on any day that is no earlier than three months prior to the first day on which that value is in effect and no later than one year following that first day.

A "qualified floating rate" is any variable rate where variations in the value of the rate can reasonably be expected to measure contemporaneous variations in the cost of newly borrowed funds in the currency in which the Variable Interest Rate Note is denominated. A fixed multiple of a qualified floating rate will constitute a qualified floating rate only if the multiple is greater than 0.65 but not more than 1.35. A variable rate equal to the product of a qualified floating rate and a fixed multiple that is greater than 0.65 but not more than 1.35, increased or decreased by a fixed rate, will also constitute a qualified floating rate. In addition, two or more qualified floating rates that can reasonably be expected to have approximately the same values throughout the term of the Variable Interest Rate Note (*e.g.*, two or more qualified floating rates with values within 25 basis points of each other as determined on the Variable Interest Rate Note's issue date) will be treated as a single qualified floating rate. The Note would not have a qualified floating rate, however, if the rate is subject to certain restrictions (including caps, floors, governors, or other similar restrictions), unless such restrictions are fixed throughout the term of the Note or are not reasonably expected to significantly affect the yield of the Note.

An "objective rate" is a rate that is not itself a qualified floating rate but which is determined using a single fixed formula and that is based on objective financial or economic information. A rate will not qualify as an objective rate if it is based on information that is within the control of the Issuer (or a related party) or that is unique to the circumstances of the Issuer (or a related party), such as dividends, profits or the value of the Issuer's stock (although a rate does not fail to be an objective rate merely because it is based on the credit quality of the Issuer). Other variable interest rates may be treated as objective rates if so designated by the IRS in the future. Despite the foregoing, a variable rate of interest on a Variable Interest Rate Note will not constitute an objective rate if it is reasonably expected that the average value of the rate during the first half of the Variable Interest Rate Note's term will be either significantly less than or significantly greater than the average value of the rate during the final half of the Variable Interest Rate Note's term.

A "qualified inverse floating rate" is any objective rate equal to a fixed rate minus a qualified floating rate, as long as variations in the rate can reasonably be expected to inversely reflect contemporaneous variations in the qualified floating rate. If a Variable Interest Rate Note provides for stated interest at a fixed rate for an initial period of one year or less followed by a variable rate that is either a qualified floating rate or an objective rate for a subsequent period and the value of the variable rate on the Variable Interest Rate Note's issue date is intended to approximate the fixed rate (e.g., the value of the variable rate on the issue date does not differ from the value of the fixed rate by more than 25 basis points), then the fixed rate and the variable rate together will constitute either a single qualified floating rate or objective rate, as the case may be.

If a Variable Interest Rate Note that provides for stated interest at either a single qualified floating rate or a single objective rate throughout the term thereof qualifies as a "variable rate debt instrument," then any stated interest on the Variable Interest Rate Note which is unconditionally payable in cash or property (other than debt instruments of the Issuer) at least annually will constitute qualified stated interest and will be taxed accordingly. Thus, a Variable Interest Rate Note that provides for stated interest at either a single qualified floating rate or a single objective rate throughout the term thereof and that qualifies as a "variable rate debt instrument" will generally not be treated as having been issued with OID unless the Variable Interest Rate Note is issued at a "true" discount (*i.e.*, at a price below the Note's stated principal amount) in excess of a specified *de minimis* amount. OID on a Variable Interest Rate Note arising from "true" discount is allocated to an accrual period using the constant yield method described above by assuming that the variable rate is a fixed rate equal to (i) in the case of a qualified floating rate or qualified inverse floating rate, the value, as of the issue date, of the qualified floating rate or qualified inverse floating rate, or (ii) in the case of an objective rate (other than a qualified inverse floating rate), a fixed rate that reflects the yield that is reasonably expected for the Variable Interest Rate Note.

In general, any other Variable Interest Rate Note that qualifies as a "variable rate debt instrument" will be converted into an "equivalent" fixed rate debt instrument for purposes of determining the amount and accrual of OID and qualified stated interest on the Variable Interest Rate Note. Such a Variable Interest Rate Note must be converted into an "equivalent" fixed rate debt instrument by substituting any qualified floating rate or qualified inverse floating rate provided for under the terms of the Variable Interest Rate Note with a fixed rate equal to the value of the qualified floating rate or qualified inverse floating rate, as the case may be, as of the Variable Interest Rate Note's issue date. Any objective rate (other than a qualified inverse floating rate) provided for under the terms of the Variable Interest Rate Note is converted into a fixed rate that reflects the yield that is reasonably expected for the Variable Interest Rate Note. In the case of a Variable Interest Rate Note that qualifies as a "variable rate debt instrument" and provides for stated interest at a fixed rate in addition to either one or more qualified floating rates or a qualified inverse floating rate, the fixed rate is initially converted into a qualified floating rate (or a qualified inverse floating rate, if the Variable Interest Rate Note provides for a qualified inverse floating rate). Under these circumstances, the qualified floating rate or qualified inverse floating rate that replaces the fixed rate must be such that the fair market value of the Variable Interest Rate Note as of the Variable Interest Rate Note's issue date is approximately the same as the fair market value of an otherwise identical debt instrument that provides for either the qualified floating rate or qualified inverse floating rate rather than the fixed rate. Subsequent to converting the fixed rate into either a qualified floating rate or a qualified inverse floating rate, the Variable Interest Rate Note is converted into an "equivalent" fixed rate debt instrument in the manner described above.

Once the Variable Interest Rate Note that qualifies as a "variable rate debt instrument" is converted into an "equivalent" fixed rate debt instrument pursuant to the foregoing rules, the amount of OID and qualified stated interest, if any, are determined for the "equivalent" fixed rate debt instrument by applying the general OID rules to the "equivalent" fixed rate debt instrument and a U.S. Holder of the Variable Interest Rate Note will account for the OID and qualified stated interest as if the U.S. Holder held the "equivalent" fixed rate debt instrument. In each accrual period, appropriate adjustments will be made to the amount of qualified stated interest or OID assumed to have been accrued or paid with respect to the "equivalent" fixed rate debt instrument in the event that these amounts differ from the actual amount of interest accrued or paid on the Variable Interest Rate Note during the accrual period.

If a Variable Interest Note does not qualify as a "variable rate debt instrument," then the Note will be treated as a contingent payment debt obligation. The U.S. federal income tax treatment of Notes that are treated as contingent payment debt obligations will be described in the applicable Pricing Supplement.

Short-Term Notes. In general, an individual or other cash basis U.S. Holder of a Short-Term Note is not required to accrue OID (as specially defined below for the purposes of this paragraph) for U.S. federal income tax purposes unless it elects to do so (but may be required to include any stated interest in income as the interest is received). Accrual basis U.S. Holders and certain other U.S. Holders are required to accrue OID on Short-Term Notes on a straight-line basis or, if the U.S. Holder so elects, under the constant-yield method (based on daily compounding). In the case of a U.S. Holder not required and not electing to include OID in income currently, any gain recognized on the sale or retirement of the Short-Term Note will be ordinary income to the extent of the OID accrued on a straight-line basis (or, if an election was made, based on the constant- yield method) through the date of sale or retirement. However, U.S. Holders who are not required and do not elect to accrue OID on Short-Term Notes will be required to defer deductions for interest on borrowings allocable to Short-Term Notes in an amount not exceeding the deferred income until the deferred income is recognized.

For purposes of determining the amount of OID subject to these rules, all interest payments on a Short-Term Note are included in the Short-Term Note's stated redemption price at maturity. A U.S. Holder may elect to determine OID on a Short-Term Note as if the Short-Term Note had been originally issued to the U.S. Holder at the U.S. Holder's purchase price for the Short-Term Note. This election will apply to all obligations with a maturity of one year or less acquired by the U.S. Holder on or after the first day of the first taxable year to which the election applies, and may not be revoked without the consent of the IRS.

Market Discount

A Note, other than a Short-Term Note, generally will be treated as purchased at a market discount (a "Market Discount Note") if the Note's stated redemption price at maturity or, in the case of a Discount Note, the Note's "revised issue price", exceeds the amount for which the U.S. Holder purchased the Note by at least 0.25% of the Note's stated redemption price at maturity or revised issue price, respectively, multiplied by the number of complete years to the Note's maturity (or, in the case of a Note that is an installment obligation, the Note's weighted average remaining maturity). For this purpose, the "revised issue price" of a Note generally equals its issue price, increased by the amount of any OID that has accrued on the Note and decreased by the amount of any payments previously made on the Note that were not qualified stated interest payments. If this excess is not sufficient to cause the Note to be a Market Discount Note, then the excess constitutes "de minimis market discount", and the rules discussed below are not applicable.

Any gain recognized on the maturity or disposition of a Market Discount Note (including any payment on a Note that is not qualified stated interest) will be treated as ordinary income to the extent of market discount that accrued on the Note while held by such U.S. Holder. Alternatively, a U.S. Holder of a Market Discount Note may elect to include market discount in income currently over the life of the Note. This election shall apply to all debt instruments with market discount acquired by the electing U.S. Holder on or after the first day of the first taxable year to which the election applies. This election may not be revoked without the consent of the IRS. A U.S. Holder of a Market Discount Note that does not elect to include market discount in income currently will generally be required to defer deductions for interest on borrowings incurred

to purchase or carry a Market Discount Note that is in excess of the interest and OID on the Note includible in the U.S. Holder's income, to the extent that this excess interest expense does not exceed the portion of accrued market discount allocable to the days on which the Market Discount Note was held by the U.S. Holder, until maturity or disposition of the Market Discount Note.

Market discount will accrue on a straight-line basis unless the U.S. Holder elects to accrue the market discount on a constant-yield method. This election applies only to the Market Discount Note with respect to which it is made and is irrevocable without the consent of the IRS.

Notes Purchased at a Premium

A U.S. Holder that purchases a Note for an amount in excess of its principal amount, or for a Discount Note, its stated redemption price at maturity, will not be required to include any OID in its income and may elect to treat the excess as "amortizable bond premium," in which case the amount required to be included in the U.S. Holder's income each year with respect to interest on the Note will be reduced by the amount of amortizable bond premium allocable (based on the Note's yield to maturity) to that year. Any election to amortize bond premium shall apply to all bonds with amortizable bond premium (other than bonds the interest on which is excludable from gross income for U.S. federal income tax purposes) held by the U.S. Holder at the beginning of the first taxable year to which the election applies or thereafter acquired by the U.S. Holder, and is irrevocable without the consent of the IRS. Special rules may limit the amount of bond premium that can be amortized during certain accrual periods in the case of Notes that are subject to optional redemption. See also " — Original Issue Discount — Election to Treat All Interest as Original Issue Discount".

Change in Obligor

The Issuer may change the obligor on the Notes and the Guarantee in connection with a future change in the Issuer's or the Guarantor's (as applicable) organizational form. Depending upon the circumstances of this change in organizational form, the replacement of the Issuer or the Guarantor may be treated for U.S. federal income tax purposes as a deemed disposition of Notes by a U.S. Holder in exchange for new Notes issued by the new issuer. As a result of this deemed disposition, a U.S. Holder may be required to recognize capital gain or loss for U.S. federal income tax purposes equal to the difference, if any, between issue price of the new notes (as determined for U.S. federal income tax purposes, which issue price may be equal to the fair market value of the Notes or new Notes at that time) and the U.S. Holder's adjusted tax basis in those Notes. However, in general, a change in obligor will not in itself result in a deemed disposition if the new obligor acquires substantially all of the assets of the Issuer or the Guarantor (as applicable), or if the new obligor assumes the Notes pursuant to a transaction that is treated as a tax-free reorganization for U.S. federal income tax purposes. U.S. Holders should consult their tax advisors concerning the U.S. federal income tax consequences to them of a change in obligor with respect to the Notes and the Guarantee.

Purchase, Sale, Retirement or Other Taxable Disposition of Notes

A U.S. Holder's adjusted tax basis in a Note will generally be its cost, increased by the amount of any OID or market discount included in the U.S. Holder's income with respect to the Note and the amount, if any, of income attributable to *de minimis* OID and *de minimis* market discount included in the U.S. Holder's income with respect to the Note, and reduced by (i) the amount of any payments that are not qualified stated interest payments, and (ii) the amount of any amortizable bond premium previously applied to reduce interest on the Note.

A U.S. Holder will generally recognize gain or loss on the sale, retirement or other taxable disposition of a Note equal to the difference between the amount realized on such disposition, other than amounts attributed to accrued but unpaid interest (which will be taxable as interest income to the extent not previously included in income), and the U.S. Holder's adjusted tax basis of the Note. Except to the extent described above under "Original Issue Discount — Market Discount" or "Original Issue Discount — Short Term Notes" or attributable to changes in exchange rates (as discussed below), gain or loss recognized on the taxable disposition of a Note will be capital gain or loss and will be long term capital gain or loss if the U.S. Holder's holding period in the Notes exceeds one year. The deductibility of capital losses is subject to limitations. Gain or loss realized by a U.S. Holder on the taxable disposition of a Note generally will constitute income or loss from sources within the United States for U.S. foreign tax credit purposes.

Foreign Currency Notes

Interest. If an interest payment is denominated in, or determined by reference to, a foreign currency (for this purpose, meaning a non-U.S. dollar currency), the amount of income recognized by a cash basis U.S. Holder will be the U.S. dollar value of the interest payment, based on the exchange rate in effect on the date of receipt, regardless of whether the payment is in fact converted into U.S. dollars.

An accrual basis U.S. Holder may determine the amount of income recognized with respect to an interest payment denominated in, or determined by reference to, a foreign currency in accordance with either of two methods. Under the first method, the amount of income accrued will be based on the average exchange rate in effect during the interest accrual period (or, in the case of an accrual period that spans two taxable years, the part of the period within the taxable year).

Under the second method, the U.S. Holder may elect to determine the amount of income accrued on the basis of the exchange rate in effect on the last day of the accrual period (or, in the case of an accrual period that spans two taxable years, the exchange rate in effect on the last day of the part of the period within the taxable year). Additionally, if a payment of interest is actually received within five business days of the last day of the accrual period, an electing accrual basis U.S. Holder may instead translate the accrued interest into U.S. dollars at the exchange rate in effect on the day of actual receipt. Any such election will apply to all debt instruments held by the U.S. Holder at the beginning of the first taxable year to which the election applies or thereafter acquired by the U.S. Holder, and will be irrevocable without the consent of the IRS.

Upon receipt of payment of accrued interest (including a payment attributable to accrued but unpaid interest upon the sale or retirement of a Note) denominated in, or determined by reference to, a foreign currency, an accrual basis U.S. Holder may recognize exchange gain or loss (taxable as ordinary income or loss) equal to the difference between the amount received (translated into U.S. dollars at the spot rate on the date of receipt) and the amount previously accrued, regardless of whether the payment is in fact converted into U.S. dollars.

OID. OID for each accrual period on a Discount Note that is denominated in, or determined by reference to, a foreign currency, will be determined in the foreign currency and then translated into U.S. dollars in the same manner as stated interest accrued by an accrual basis U.S. Holder, as described above. Upon receipt of an amount attributable to OID (whether in connection with a payment on the Note or a sale of the Note), a U.S. Holder may recognize exchange gain or loss (taxable as ordinary income or loss) equal to the difference between the amount received (translated into U.S. dollars at the spot rate on the date of receipt) and the amount previously accrued, regardless of whether the payment is in fact converted into U.S. dollars.

Market Discount. Market Discount on a Note that is denominated in, or determined by reference to, a foreign currency, will be accrued in the foreign currency. If the U.S. Holder elects to include market discount in income currently, the accrued market discount will be translated into U.S. dollars at the average exchange rate for the accrual period (or portion thereof within the U.S. Holder's taxable year). Upon the receipt of an amount attributable to accrued market discount, the U.S. Holder may recognize exchange gain or loss (which will be taxable as ordinary income or loss) determined in the same manner as for accrued interest or OID. A U.S. Holder that does not elect to include market discount in income currently will recognize, upon the disposition or maturity of the Note, the U.S. dollar value of the amount accrued, calculated at the spot rate on that date, and no part of this accrued market discount will be treated as exchange gain or loss.

Bond Premium. Bond premium (including acquisition premium) on a Note that is denominated in, or determined by reference to, a foreign currency, will be computed in units of the foreign currency, and any such bond premium that is taken into account currently will reduce interest income in units of the foreign currency. On the date bond premium offsets interest income, a U.S. Holder may recognize exchange gain or loss (taxable as ordinary income or loss) equal to the amount offset multiplied by the difference between the spot rate in effect on the date of the offset and the spot rate in effect on the date the Notes were acquired by the U.S. Holder. A U.S. Holder that does not elect to take bond premium (other than acquisition premium) into account currently will recognize a capital loss when the Note matures.

Sale, Retirement or Other Taxable Disposition. As discussed above under "Purchase, Sale, Retirement or Other Taxable Disposition of Notes," a U.S. Holder will generally recognize gain or loss on the sale, retirement or other taxable disposition of a Note equal to the difference between the amount realized on such sale, retirement or taxable disposition and its adjusted tax basis in the Note. A U.S. Holder's adjusted tax basis in a Note that is denominated in a foreign currency will be determined by reference to the U.S. dollar cost of the Note. The U.S. dollar cost of a Note purchased with foreign currency will generally be the U.S. dollar value of the purchase price on the date of purchase or, in the case of Notes traded on an established securities market, as defined in the applicable U.S. Treasury Regulations, that are purchased by a cash basis U.S. Holder (or an accrual basis U.S. Holder that so elects), on the settlement date for the purchase.

The amount realized on a sale, retirement or other taxable disposition of a Note for an amount in foreign currency will be the U.S. dollar value of this amount on the date of such taxable disposition or, in the case of Notes traded on an established securities market that are sold by a cash basis U.S. Holder (or an accrual basis U.S. Holder that so elects), on the settlement date for the sale. Such an election by an accrual basis U.S. Holder must be applied consistently from year to year and cannot be revoked without the consent of the IRS.

A U.S. Holder will recognize exchange rate gain or loss (taxable as ordinary income or loss) on the taxable disposition of a Note equal to the difference, if any, between the U.S. dollar values of the U.S. Holder's purchase price for the Note on (i) the date of disposition and (ii) the date on which the U.S. Holder acquired the Note. Any such exchange rate gain or loss will be realized only to the extent of total gain or loss realized on the sale or retirement.

Exchange gain or loss generally constitutes income or loss from sources within the United States for U.S. foreign tax credit purposes.

Backup Withholding and Information Reporting

In general, payments of interest and accruals of any OID on, and the proceeds of a sale, redemption or other disposition of, the Notes payable to a U.S. Holder by a U.S. issuing and paying agent or other U.S. intermediary will be reported to the IRS and to the U.S. Holder as may be required under applicable regulations. Backup withholding will apply to these payments and payments of OID if the U.S. Holder fails to provide an accurate taxpayer identification number or certification of exempt status or if the U.S. Holder had been notified that it is subject to backup withholding because of a failure to report all interest and dividends required to be shown on its U.S. federal income tax returns. Certain U.S. Holders (including, among others, corporations) are not subject to backup withholding. U.S. Holders should consult their tax advisors as to their qualification for exemption from backup withholding and the procedure for obtaining an exemption. The amount of any backup withholding from a payment to a U.S. Holder will be allowed as a credit against such U.S. Holder's U.S. federal income tax liability and may entitle such U.S. Holder to a refund, provided that the required information is timely furnished to the IRS and certain other requirements are met.

Certain U.S. Holders who are individuals (or certain specified entities) may be required to report information to the IRS with respect to any interest in the Notes not held in an account maintained by a financial institution, or with respect to certain accounts maintained with non-U.S. financial institutions. U.S. Holders who fail to report required information could become subject to substantial penalties. U.S. Holders are urged to consult with their own tax advisors regarding the possible implications of this legislation for their ownership and disposition of the Notes.

Reportable Transactions

Certain regulations meant to require the reporting of certain tax shelter transactions cover transactions generally not regarded as tax shelters, including certain foreign currency transactions giving rise to losses that equal or exceed a certain threshold. The scope and application of these rules is not entirely clear. A U.S. Holder may be required to treat a foreign currency exchange loss from the Notes as a reportable transaction if the loss exceeds U.S.$50,000 in a single taxable year, if the U.S. Holder is an individual or trust, or higher amounts for other non-individual U.S. Holders. In the event the acquisition, holding or disposition of Notes constitutes participation in a "reportable transaction" for purposes of those rules, a U.S. Holder will be required to disclose its investment by filing Form 8886 with the IRS. A penalty in the amount of U.S.$10,000

in the case of a natural person and U.S.$50,000 in all other cases is generally imposed on any taxpayer that fails to timely file an information return with the IRS with respect to a transaction resulting in a loss that is treated as a reportable transaction. Prospective purchasers are urged to consult their tax advisors regarding the application of these rules to the acquisition, holding or disposition of Notes.

Foreign Account Tax Compliance Act

Pursuant to provisions of the Code commonly referred to as FATCA, the Issuer (if treated as a financial institution), and other non-U.S. financial institutions through which payments on the Notes are made, may be required to withhold tax on all, or a portion of, payments made after December 31, 2018 (or if later, the date of publication of the final U.S. Treasury regulations defining the term "foreign passthru payment") on any Notes issued or materially modified on or after the date that is six months after final U.S. Treasury Regulations defining the term "foreign passthru payment" are filed. The rules governing FATCA have not yet been fully developed in this regard, and the future application of FATCA to the Issuer and the Notes is uncertain. However, such withholding by the Issuer and other non-U.S. financial institutions through which payments on the Notes are made, may be required, among others, where (i) the Issuer or such other non-U.S. financial institution is a foreign financial institution ("FFI") that agrees to provide certain information on its account holders to the IRS (making the Issuer or such other non-U.S. financial institution a "participating FFI") and (ii)(a) the payee itself is an FFI but is not a participating FFI or does not provide information sufficient for the relevant participating FFI to determine whether the payee is subject to withholding under FATCA or (b) the payee is not a participating FFI and is not otherwise exempt from FATCA withholding. Singapore has an IGA with the United States to implement FATCA. Guidance regarding compliance with FATCA and the IGA may alter the rules described herein, including treatment of foreign passthru payments. Notwithstanding anything herein to the contrary, if an amount of, or in respect of, withholding tax were to be deducted or withheld from interest, principal or other payments on the Notes as a result of FATCA, neither the Issuer nor Guarantor nor any other person would, pursuant to terms of the Notes, be required to pay any additional amounts as a result of the deduction or withholding of such tax. **THE RULES GOVERNING FATCA ARE EXTREMELY COMPLICATED. INVESTORS SHOULD CONSULT THEIR TAX ADVISORS TO DETERMINE WHETHER THESE RULES MAY APPLY TO PAYMENTS THEY WILL RECEIVE UNDER THE NOTES.**

European Tax Considerations

The proposed financial transactions tax ("FTT")

On February 14, 2013, the European Commission published a proposal (the "Commission Proposal") for a directive for a common FTT in Austria, Belgium, France, Germany, Greece, Italy, Portugal, Slovakia, Slovenia, Spain (the participating Member States) and Estonia. Estonia officially announced its withdrawal from the negotiations in March 2016.

The proposed FTT has very broad scope and could, if introduced in the form proposed on February 14, 2013, apply to certain dealings in the Notes (including secondary market transactions) in certain circumstances. Primary market transactions referred to in Article 5(c) of Regulation (EC) No 1287/2006 are expected to be exempt.

Under the Commission Proposal, the FTT could apply in certain circumstances to persons both within and outside of the participating Member States. Generally, it would apply to certain dealings in the Notes where at least one party is a financial institution (as defined in the Commission Proposal), and at least one party is established in a participating Member State. A financial institution may be, or be deemed to be, "established" in a participating Member State in a broad range of circumstances, including (a) by transacting with a person established in a participating Member State or (b) where the financial instrument which is subject to the dealings is issued in a participating Member State.

The FTT proposal remains subject to negotiation between the participating Member States. It may therefore be altered prior to any implementation, the timing of which remains unclear. Additional EU Member States may decide to participate.

Prospective holders of the Notes should consult their professional advisors in relation to the FTT and its potential impact on their dealings in the Notes before investing.

PLAN OF DISTRIBUTION

Summary of the Program Agreement

Subject to the terms and on the conditions contained in a program agreement, dated October 25, 2018 (the "Program Agreement"), among the Company, the Guarantor, the Arrangers and the Dealers named therein, the Notes will be offered from time to time for sale through the Dealers. The Notes may be resold at prevailing market prices, or at prices related thereto, at the time of such resale, as determined by the relevant Dealer. The Program Agreement also provides for Notes to be issued in syndicated series that are severally and not jointly underwritten by two or more Dealers. The Program Agreement further provides for the termination of appointment of existing Dealers and the appointment of additional Dealers.

The Company will pay each relevant Dealer a commission as agreed between them in respect of Notes subscribed by it. The Company has agreed to reimburse the Arrangers for their expenses incurred in connection with the update of the Program and the Dealers for certain of their activities in connection with the Program. The commissions in respect of an issue of Notes on a syndicated basis will be stated in the relevant Pricing Supplement.

The Company and the Guarantor have, jointly and severally, agreed to indemnify the Dealers in connection with the offer and sale of such Notes, including liability under the Securities Act. The Program Agreement entitles the Dealers to terminate any agreement that they make to purchase Notes in certain circumstances prior to payment for such Notes being made to the Company.

The Dealers may from time to time purchase and sell Notes in the secondary market, but they are not obligated to do so, and there can be no assurance that there will be a secondary market for the Notes or liquidity in the secondary market if one develops. From time to time, the Dealers may make a market in the Notes.

Application has been made for permission to deal in, and for quotation of, any Notes which are agreed at the time of issue to be so listed on the SGX-ST. In connection with the offer and sale of each series of Notes, the relevant Pricing Supplement will indicate whether or not and, if so, on which stock exchange(s) the Notes will be listed. No assurances can be given that an application to the SGX-ST will be approved. In addition, no assurances can be given that if the Program qualifies for listing on a stock exchange and the relevant Pricing Supplement indicates that such series of Notes will be listed on a stock exchange, that such Notes will trade from their date of issuance until maturity (or early redemption).

Some of the Dealers and their affiliates have, directly or indirectly, performed investment and/ or commercial banking or financial advisory or trustee services for the Company, the Guarantor or its affiliates, for which they may have received customary fees and commissions, and they expect to provide these services to the Company, the Guarantor and its affiliates in the future, for which they may also receive customary fees and commissions.

Selling Restrictions

General

These selling restrictions may be modified by the agreement of the Company, the Guarantor and the Dealers following a change in a relevant law, regulation or directive. Any such modification will be set out in the Pricing Supplement issued in respect of the issue of Notes to which it relates or in a supplement to this Offering Circular.

No representation is made that any action has been taken in any jurisdiction that would permit a public offering of any of the Notes, or possession or distribution of the Offering Circular or any other offering material or any Pricing Supplement, in any country or jurisdiction where action for that purpose is required.

Each Dealer has agreed that it will, to the best of its knowledge, comply with all relevant laws, regulations and directives in each jurisdiction in which it purchases, offers, sells or delivers Notes, or has in its possession or distributes the Offering Circular, any other offering material or any Pricing Supplement.

If a jurisdiction requires that the offering be made by a licensed broker or dealer and the Dealer or any affiliate of the Dealers is a licensed broker or dealer in that jurisdiction, the offering shall be deemed to be made by that Dealer or its affiliate on behalf of the Issuer in such jurisdiction.

Canada

Each Dealer has represented, warranted and agreed that any distribution of the Notes in Canada will be made only in the provinces of Ontario, Quebec, Alberta and British Columbia on a private placement basis exempt from the requirement that the Issuer prepares and files a prospectus with the securities regulatory authorities in each province where trades of the Notes are made. Each Dealer further represents, warrants and agrees that any resale of the Notes in Canada will be made under applicable securities laws which may vary depending on the relevant jurisdiction, and which may require resales to be made under available statutory exemptions or under a discretionary exemption granted by the applicable Canadian securities regulatory authority. Purchasers are advised to seek legal advice prior to any resale of the securities.

Each Dealer represented, warranted and agreed that by purchasing the Notes in Canada and accepting delivery of a purchase confirmation, a purchaser will be notified that it will be deemed to represent to the Issuer and the Dealer from whom the purchase confirmation is received that:

(a) the purchaser is entitled under applicable provincial securities laws to purchase the Notes without the benefit of a prospectus qualified under those securities laws as it is an "accredited investor" as defined under National Instrument 45-106 — Prospectus Exemptions;

(b) the purchaser is a "permitted client" as defined in National Instrument 31-103 — Registration Requirements, Exemptions and Ongoing Registrant Obligations;

(c) where required by law, the purchaser is purchasing as principal and not as agent; and

(d) the purchaser has reviewed the text in the subsection of the Offering Circular titled "Plan of Distribution — Selling Restrictions — Canada."

Canadian purchasers are hereby notified that the Dealers are relying on the exemption set out in Section 3A.3 or 3A.4, if applicable, of National Instrument 33-105 — Underwriting Conflicts from having to provide certain conflict of interest disclosure in the Offering Circular.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if the offering documents (including any amendment thereto) such as the Offering Circular contain a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser of these securities in Canada should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

All of the Issuer's directors and officers as well as the experts named herein and the Issuer may be located outside of Canada and, as a result, it may not be possible for Canadian purchasers to effect service of process within Canada upon the Issuer or those persons. All or a substantial portion of the Issuer's assets and the assets of those persons may be located outside of Canada and, as a result, it may not be possible to satisfy a judgment against the Issuer or those persons in Canada or to enforce a judgment obtained in Canadian courts against the Issuer or those persons outside of Canada.

Canadian purchasers of the Notes should consult their own legal and tax advisors with respect to the tax consequences of an investment in the Notes in their particular circumstances and about the eligibility of the Notes for investment by the purchaser under relevant Canadian legislation.

European Economic Area

Prohibition of Sales to EEA Retail Investors

Unless the relevant Pricing Supplement in respect of any Notes specifies the "Prohibition of Sales to EEA Retail Investors" as "Not Applicable", each Dealer (severally, and not jointly) represents, warrants and agrees that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Notes which are the subject of the offering contemplated by the Offering Circular as completed by the Pricing Supplement.

Supplement in relation thereto to any retail investor in the European Economic Area. For the purposes of this provision:

(a) the expression "retail investor" means a person who is one (or more) of the following:

(i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "MiFID II"); and

(ii) a customer within the meaning of the Insurance Mediation Directive, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; and

(iii) not a qualified investor as defined in Directive 2003/71/EC (as amended, the "Prospectus Directive"); and

(b) the expression an "offer" includes the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe the Notes.

If the Pricing Supplement in respect of any Notes specifies "Prohibition of Sales to EEA Retail Investors" as "Not Applicable", each Dealer represents and agrees, in relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State"), and each further Dealer appointed under the Program will be required to represent and agree, that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the "Relevant Implementation Date") it has not made and will not make an offer of Notes which are the subject of the offering contemplated by the Offering Circular as completed by the pricing supplement in relation thereto to the public in that Relevant Member State except that it may, with effect from and including the Relevant Implementation Date, make an offer of such Notes to the public in that Relevant Member State:

1) if the Pricing Supplement in relation to the Notes specifies that an offer of those Notes may be made other than pursuant to Article 3(2) of the Prospectus Directive in that Relevant Member State (a Non-exempt Offer), following the date of publication of a prospectus in relation to such Notes which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, provided that any such prospectus has subsequently been completed by the Pricing Supplement contemplating such Non-exempt Offer, in accordance with the Prospectus Directive, in the period beginning and ending on the dates specified in such prospectus or Pricing Supplement, as applicable and the Issuer has consented in writing to its use for the purpose of that Non-exempt Offer;

2) *Qualified investors*: at any time to any legal entity which is a "qualified investor" as defined in the Prospectus Directive;

3) *Fewer than 150 offerees*: at any time to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the relevant Dealer or Dealers nominated by the Issuer for any such offer; or

4) *Other exempt offers*: at any time in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of Notes referred to in (2) to (4) above shall require the Issuer or any Dealer to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

For the purposes of this provision, the expression "an offer of Notes to the public" in relation to any Notes in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe the Notes, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive), and includes any relevant implementing measure in each Relevant Member State and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

France

Each Dealer has represented, warranted and agreed that:

(a) Offer to the public in France:

it has only made and will only make an offer of Notes to the public (appel public à lépargne) in France in the period beginning (i) when a prospectus in relation to those Notes has been approved by the Autorité des marchés financiers ("AMF"), on the date of its publication or, (ii) when a prospectus has been approved by the competent authority of another Member State of the European Economic Area which has implemented the EU Prospectus Directive 2003/71/EC, on the date of notification of such approval to the AMF and ending at the latest on the date which is 12 months after the date of the approval of this Offering Circular, all in accordance with articles L.412-1 and L.621-8 of the French Code monétaire et financier and the Règlement général of the AMF; or

(b) Private placement in France:

in connection with their initial distribution, it has not offered or sold and will not offer or sell, directly or indirectly, Notes to the public in France, and it has not distributed or caused to be distributed and will not distribute or cause to be distributed to the public in France, this Offering Circular, the relevant Pricing Supplement or any other offering material relating to the Notes and such offers, sales and distributions have been and will be made in France only to (i) providers of investment services relating to portfolio management for the account of third parties, and/or (ii) qualified investors (*investisseurs qualifiés*) other than individuals, all as defined in, and in accordance with, articles L.411-1, L.411-2 and D.411-1 to D.411-4 of the French Code monétaire et financier.

Hong Kong

In relation to each Tranche of Notes issued by the Issuer, each Dealer has represented and agreed, and each further Dealer appointed under the Program will be required to represent and agree, that:

(a) it has not offered or sold and will not offer or sell in Hong Kong, by means of any document, any Notes other than (i) to "professional investors" as defined in the Securities and Futures Ordinance of Hong Kong (Cap. 571) ("SFO") and any rules made under that Ordinance, except for Notes which are a "structured product" as defined in SFO or any rules made thereunder; or (ii) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance of Hong Kong (Cap. 32) ("CO") or which do not constitute an offer or invitation to the public within the meaning of the CO or the SFO; and

(b) it has not issued or had in its possession for the purposes of issue, and will not issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or document relating to the Notes, which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to Notes which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the SFO.

Italy

Each Dealer has represented, warranted and agreed that the offer of the Notes has not been registered with the Italian Securities and Exchange Commission (*Commissione Nazionale per le Società e la Borsa*, the "CONSOB") pursuant to Italian securities legislation and, accordingly, each Dealer has represented and agreed that no Notes may be offered, sold or distributed, to the public in the Republic of Italy ("Italy") nor may copies of the Offering Circular or of any other document relating to the Notes be distributed in Italy, except:

(a) to qualified investors (*investitori qualificati*), as defined in Article 2, paragraph (e) of the Prospectus Directive as implemented by Article 34-*ter* of CONSOB Regulation No. 11971 of May 14**,** 1999, as amended from time to time (the "Issuers Regulation"); or

(b) in any other circumstances where an express exemption from compliance with the restrictions on offers to the public applies, as provided under Article 100 of the Italian Legislative Decree No. 58 of February 24, 1998, as amended from time to time, (the "Financial Services Act") and Article 34-*ter* of the Issuers Regulation.

Moreover, and subject to the foregoing, each Dealer has represented and agreed that any offer, sale or delivery of the Notes or distribution of copies of this document or any other document relating to the Notes in Italy under (a) or (b) above must be:

(1) made by an investment firm, bank or financial intermediary permitted to conduct such activities in Italy in accordance with the Financial Services Act, CONSOB Regulation No. 16190 of October 29, 2007, as amended from time to time, and Legislative Decree No. 385 of September 1, 1993, as amended from time to time (the "Banking Act");

(2) in compliance with Article 129 of the Banking Act and the implementing guidelines of the Bank of Italy, as amended from time to time, pursuant to which the Bank of Italy requests information on the issue or the offer of securities in Italy; and

(3) in compliance with any other applicable laws and regulations or requirement imposed by the Bank of Italy, CONSOB or other Italian authority.

Any investor purchasing the Notes in the offering is solely responsible for ensuring that any offer or resale of the Notes it purchased in the offering occurs in compliance with applicable Italian laws and regulations.

Japan

The Notes have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended, the "Financial Instruments and Exchange Act"). Accordingly, each of the Dealers has represented and agreed, and each further Dealer appointed under the Program will be required to represent and agree, that it has not, directly or indirectly, offered or sold and will not, directly or indirectly, offer or sell any Notes in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan) or to others for re-offering or re-sale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and other relevant laws and regulations of Japan.

Korea

Each Dealer has represented, warranted and agreed that Notes have not been and will not be offered, sold or delivered, directly or indirectly, in Korea or to or for the account or benefit of any Korean resident (as such term is defined in the Foreign Exchange Transaction Law of Korea) except as otherwise permitted under applicable Korean laws and regulations.

Furthermore, a holder of Notes will be prohibited from offering, delivering or selling any Notes, directly or indirectly, in Korea or to any Korean resident for a period of one year from the date of issuance of Notes except (i) in the case where the Notes are issued as bonds other than equity-linked bonds, such as convertible bonds, bonds with warrants and exchangeable bonds (but with respect to exchangeable bonds, only those which are exchangeable into shares, convertible bonds or bonds with warrants), Notes may be offered, sold or delivered to or for the account or benefit of a Korean resident which falls within certain categories of professional investors as specified in the Financial Investment Services and Capital Markets Act, its Enforcement Decree and the Regulation on Securities Issuance and Disclosure, provided that such professional investors are registered as "qualified institutional buyers" ("Korean QIBs") with the Korea Financial Investment Association (the "KOFIA") in advance and complies with the requirement for monthly reports to the KOFIA of their holding of Korean QIB Bonds, and provided further that (a) the Notes are denominated, and the principal and interest payments thereunder are made, in a currency other than South Korean won, (b) the amount of the Notes acquired by such Korean QIBs in the primary market is limited to less than 20% of the aggregate issue amount of the Notes, (c) the Notes are listed on one of the major overseas securities markets designated by the Financial Supervisory Service of Korea, or certain procedures, such as registration or report with a foreign financial investment regulator, have been completed for offering of the Notes in a major overseas securities market, (d) the one-year restriction on offering, delivering or selling of the Notes to a Korean resident other than a Korean QIB is expressly stated in the Notes, the relevant underwriting agreement, subscription agreement and the Offering Circular, and (e) the Issuer and the relevant Dealers shall individually or collectively keep the evidence of fulfillment of conditions (a) through (d) above after having taken necessary actions therefor; or (ii) as otherwise permitted under applicable Korean laws and regulations. Each Dealer undertakes to use commercially reasonable best measures as a Dealer in the ordinary course of its business so that any securities dealer to which it sells Notes confirms that it is purchasing such Notes as principal and agrees with such Dealer that it will comply with the restrictions described above.

Malaysia

Each Dealer has acknowledged that (i) no approval from the Securities Commission Malaysia ("SC") is or will be obtained and/or no lodgement to the SC under the Lodge and Launch Framework issued by the SC has been or will be made for the offering of the Notes on the basis that the Notes will be issued and offered exclusively to persons outside Malaysia and (ii) the Offering Circular has not been registered as a prospectus with the SC under the Capital Markets and Services Act 2007 of Malaysia. Each Dealer has represented and agreed that the Notes may not be offered, sold, transferred or otherwise disposed of, directly or indirectly, nor may any document or other material in connection therewith be distributed, to a person in Malaysia except by way of a secondary transaction of the Notes which does not involve retail investors.

Singapore

Each Dealer has acknowledged and each further Dealer appointed under the Program will be required to acknowledge, that this Offering Circular has not been registered as a prospectus with the MAS. Accordingly, each Dealer has represented, warranted and agreed and each further Dealer appointed under the Program will be required to represent, warrant and agree that it has not offered or sold any Notes or caused the Notes to be made the subject of an invitation for subscription or purchase and will not offer or sell any Notes or cause the Notes to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this Offering Circular or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Notes, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined in the SFA) under Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1), or to any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the Notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(a) a corporation (which is not an accredited investor (as defined in the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

the securities or securities-based derivatives contracts (each as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the Notes pursuant to an offer made under Section 275 of the SFA except:

(1) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

(2) where no consideration is or will be given for the transfer;

(3) where the transfer is by operation of law; or

(4) as specified in Section 276(7) of the SFA.

Any reference to the SFA is a reference to the Securities and Futures Act, Chapter 289 of Singapore and a reference to any term as defined in the SFA or any provision in the SFA is a reference to that term as modified or amended from time to time including by such of its subsidiary legislation as may be applicable at the relevant time.

Switzerland

Each Dealer has acknowledged and agreed that the Notes may not be publicly offered, sold, or advertised, directly or indirectly, in, into or from Switzerland, and will not be listed on SIX Swiss Exchange ("SIX") or on any other exchange or regulated trading facility in Switzerland. The Offering Circular has been prepared without regard to the disclosure standards for issuance prospectuses under article 652a or article 1156 of the Swiss Code of Obligations, or the disclosure standards for listing prospectuses under article 27 et seq. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland, or the rules related to prospectuses under Swiss Federal Act on Collective Investment Schemes. Neither the Offering Circular nor any other offering or marketing material relating to the Notes or the offering of the Notes under the Program may be publicly distributed or otherwise made publicly available in Switzerland.

Each Dealer has further acknowledged and agreed that neither the Offering Circular nor any other offering or marketing material relating to the offering of the Notes under the Program, the Issuer or the Notes have been or will be filed with or approved by any Swiss regulatory authority. In particular, the Offering Circular will not be filed with, and the offer of Notes will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA ("FINMA"). Acquirers of the Notes will not benefit from protection or supervision by FINMA.

The People's Republic of China

Each Dealer has represented, warranted and agreed that the Notes are not being offered or sold and may not be offered or sold, directly or indirectly, in the People's Republic of China (for such purposes, not including the Hong Kong Special Administrative Region), except as permitted by the securities laws of the People's Republic of China. See " — Hong Kong" above for the selling restrictions relating to the Hong Kong Special Administrative Region.

United Kingdom

Each Dealer has represented, warranted and agreed, and each further Dealer appointed under the Program will be required to represent, warrant and agree, that:

(a) in relation to any Notes which have a maturity of less than one year, (a) it is a person whose ordinary activities involve it in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of its business and (b) it has not offered or sold and will not offer or sell any Notes other than to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or as agent) for the purposes of their businesses or who it is reasonable to expect will acquire, hold, manage or dispose of investments (as principal or agent) for the purposes of their businesses where the issue of the Notes would otherwise constitute a contravention of Section 19 of the Financial Services and Markets Act 2000, as amended (the "FSMA") by the Company;

(b) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of any Notes in circumstances in which Section 21(1) of the FSMA does not apply to the Company or the Guarantor; and

(c) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to any Notes in, from or otherwise involving the United Kingdom.

United States

The Notes and the Guarantee have not been and will not be registered under the Securities Act and the Notes may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons, except in certain transactions exempt from the registration requirements of the Securities Act. Terms used in this paragraph have the meanings given to them by Regulation S.

Each Dealer has agreed and each further Dealer appointed under the Program will be required to agree that, except as permitted by the Program Agreement, it will not offer, sell or, in the case of Bearer Notes, deliver Notes (i) as part of their distribution at any time or (ii) otherwise until 40 days after the completion of the distribution of an identifiable tranche of which such Notes are a part, as determined and certified to the relevant Trustee or the Company by such Dealer (or, in the case of an identifiable tranche of Notes sold to or through more than one Dealer, by each of such Dealers with respect to Notes of an identifiable tranche purchased by or through it, in which case the relevant Trustee or the Company shall notify such Dealer when all such Dealers have so certified), within the United States or its possessions or to, or for the account or benefit of, U.S. persons, and it will have sent to each Dealer to which it sells Notes during the distribution compliance period (other than resales pursuant to Rule 144A) a confirmation or other notice setting out the restrictions on offers and sales of the Notes within the United States or its possessions or to, or for the account or benefit of, U.S. persons. Terms used in the preceding sentence have the meanings given to them by Regulation S.

In addition in respect of Bearer Notes where TEFRA D is specified in the applicable Pricing Supplement:

(i) except to the extent permitted under rules in substantially the same form as U.S. Treasury Regulations Section 1.163-5(c)(2)(i)(D) for purposes of Section 4701 of the U.S. Internal Revenue Code ("TEFRA D"), each Dealer (a) represents that it has not offered or sold, and agrees that during the restricted period it will not offer or sell, Bearer Notes to a person who is within the United States or its possessions or to a United States person, and (b) represents that it has not delivered and agrees that it will not deliver within the United States or its possessions definitive Bearer Notes that are sold during the restricted period;

(ii) each Dealer represents that it has and agrees that throughout the restricted period it will have in effect procedures reasonably designed to ensure that its employees or agents who are directly engaged in selling Bearer Notes are aware that such Bearer Notes may not be offered or sold during the restricted period to a person who is within the United States or its possessions or to a United States person, except as permitted by TEFRA D;

(iii) if it is a United States person, each Dealer represents that it is acquiring Bearer Notes for purposes of resale in connection with their original issuance and if it retains Bearer Notes for its own account, it will only do so in accordance with the requirements of rules in substantially the same form as U.S. Treasury Regulations Section 1.163-5(c)(2)(i)(D)(6) for purposes of Section 4701 of the U.S. Internal Revenue Code;

(iv) with respect to each affiliate that acquires Bearer Notes from a Dealer for the purpose of offering or selling such Bearer Notes during the restricted period, such Dealer either (a) repeats and confirms the representations and agreements contained in clauses (i), (ii) and (iii) above on such affiliate's behalf or (b) agrees that it will obtain from such affiliate for the benefit of the Issuer the representations and agreements contained in clauses (i), (ii) and (iii) above; and

(v) such Dealer will obtain for the benefit of the Issuer the representations and agreements contained in clauses (i), (ii), (iii) and (iv) above from any person other than its affiliate with whom it enters into a written contract, within the meaning of rules in substantially the same form as United States Treasury Regulations Section 1.163-5(c)(2)(i)(D)(4), for purposes of Section 4701 of the U.S. Internal Revenue Code for the offer and sale during the restricted period of Bearer Notes.

Terms used in the preceding paragraph have the meanings given to them by the U.S. Internal Revenue Code of 1986, as amended, and regulations thereunder, including TEFRA D.

In respect of Bearer Notes where TEFRA C is specified in the applicable Pricing Supplement under rules in substantially the same form as U.S. Treasury Regulations Section 1.163-5(c)(2)(i)(C) for purposes of Section 4701 of the U.S. Internal Revenue Code ("TEFRA C"), such Bearer Notes must be issued and delivered outside the United States and its possessions in connection with their original issuance. Each Dealer represents and agrees that it has not offered, sold or delivered, and will not offer, sell or deliver, directly or indirectly, such Bearer Notes within the United States or its possessions in connection with their original issuance. Further, each Dealer represents and agrees in connection with the original issuance of such Bearer Notes that it has not communicated, and will not communicate, directly or indirectly, with a prospective purchaser if either such purchaser or it is within the United States or its possessions and will not otherwise involve its U.S. office in the offer or sale of such Bearer Notes. Terms used in this paragraph have the meanings given to them by the U.S. Internal Revenue Code of 1986, as amended, and regulations thereunder, including TEFRA C.

Notes issued pursuant to TEFRA D (other than Temporary Global Notes) and any receipts or coupons appertaining thereto will bear the following legend: "ANY UNITED STATES PERSON WHO HOLDS THIS OBLIGATION WILL BE SUBJECT TO LIMITATIONS UNDER THE UNITED STATES INCOME TAX LAWS, INCLUDING THE LIMITATIONS PROVIDED IN SECTIONS 165(j) AND 1287(a) OF THE INTERNAL REVENUE CODE".

The Notes are being offered and sold outside the United States to non-U.S. persons in reliance on Regulation S. The Program Agreement provides that the Dealers may directly or through their respective U.S. broker-dealer affiliates arrange for the offer and resale of Notes within the United States only to qualified institutional buyers in reliance on Rule 144A.

In addition, until 40 days after the commencement of the offering of any identifiable tranche of Notes, any offer or sale of Notes within the United States by any dealer (whether or not participating in the offering of such tranche of Notes) may violate the registration requirements of the Securities Act if such offer or sale is made otherwise than in accordance with Rule 144A.

This Offering Circular has been prepared by the Issuer for use in connection with the offer and sale of the Notes outside the United States and for the resale of the Notes in the United States. The Issuer and the Dealers reserve the right to reject any offer to purchase the Notes, in whole or in part, for any reason. This Offering Circular does not constitute an offer to any person in the United States or to any U.S. person, other than any qualified institutional buyer within the meaning of Rule 144A to whom an offer has been made directly by one of the Dealers or its U.S. broker-dealer affiliate. Distribution of this Offering Circular by any non-U.S. person outside the United States or by any qualified institutional buyer in the United States to any U.S. person or to any other person within the United States, other than any qualified institutional buyer and those persons, if any, retained to advise such non-U.S. person or qualified institutional buyer with respect thereto, is unauthorized and any disclosure without the prior written consent of the Issuer of any of its contents to any such U.S. person or other person within the United States, other than any qualified institutional buyer and those persons, if any, retained to advise such non-U.S. person or qualified institutional buyer, is prohibited.

UNITED STATES BENEFIT PLAN INVESTOR CONSIDERATIONS

The Notes may be purchased and held by (a) an employee benefit plan subject to Title I of the U.S. Employee Retirement Income Security Act of 1974, as amended ("ERISA"), (b) an individual retirement account or other plan or arrangement subject to Section 4975 of the Internal Revenue Code, or (c) an entity whose underlying assets are considered to include "plan assets" (within the meaning of ERISA) of any such plan, account or arrangement by reason of a plan's investment in such entity (each, a "plan"). A fiduciary of a plan subject to Title I of ERISA (each, an "ERISA plan") must determine that the purchase and holding of a Note is consistent with its fiduciary duties under ERISA. The fiduciary of an ERISA plan, as well as any other investor or prospective investor subject to Section 4975 of the Internal Revenue Code or any similar law, must also determine that its purchase and holding of Notes does not constitute or result in a non-exempt prohibited transaction under Section 406 of ERISA or Section 4975 of the Internal Revenue Code or a violation of any similar law. Each purchaser and transferee of a Note will be deemed to have represented by its acquisition and holding of the Note that its acquisition and holding of the Notes does not constitute or result in a non-exempt prohibited transaction under ERISA, Section 4975 of the Internal Revenue Code or a violation of any similar law. Fiduciaries and other persons considering whether to purchase a Note should consult with their own counsel regarding the applicability of ERISA, Section 4975 of the Internal Revenue Code or any similar law. Investors in the Notes have exclusive responsibility for ensuring that their purchase of the Notes does not violate the fiduciary or prohibited transaction rules of ERISA or the Internal Revenue Code or any provisions of similar laws.

NOTICE TO PURCHASERS AND HOLDERS OF REGISTERED GLOBAL NOTES AND TRANSFER RESTRICTIONS

As a result of the following restrictions, purchasers of Notes in the United States are advised to consult legal counsel prior to making any offer, resale, pledge or transfer of Notes.

Each prospective purchaser of Notes that have a legend regarding restrictions on transferability, by accepting delivery of this Offering Circular, will be deemed to have represented and agreed that this Offering Circular is personal to such offeree and does not constitute an offer to any other person or to the public generally to subscribe for or otherwise acquire Notes. Distribution of this Offering Circular, or disclosure of any of its contents to any person other than such offeree and those persons, if any, retained to advise such offeree with respect thereto is unauthorized, and any disclosure of any of its contents, without the prior written consent of the Issuer and the Guarantor is prohibited.

Restricted Global Notes

Each U.S. person, and person acting for the account or benefit of a U.S. person, purchasing Notes pursuant to Rule 144A and each purchaser of Notes within the United States pursuant to Rule 144A, by accepting delivery of this Offering Circular, will be deemed to have represented, agreed and acknowledged that:

1. It is (a) a qualified institutional buyer within the meaning of Rule 144A ("QIB"), (b) acquiring such Notes for its own account or for the account of a QIB and (c) aware, and each beneficial owner of such Notes has been advised, that the sale of such Notes to it is being made in reliance on Rule 144A.

2. (i) The Notes have not been and will not be registered under the Securities Act and may not be offered, sold, pledged or otherwise transferred except (a) in accordance with Rule 144A to a person that it and any person acting on its behalf reasonably believe is a QIB purchasing for its own account or for the account of a QIB, (b) in an offshore transaction to a non-U.S. person in accordance with Rule 903 or Rule 904 of Regulation S or (c) pursuant to an exemption from registration under the Securities Act provided by Rule 144 thereunder (if available), in each case in accordance with any applicable securities laws of any State of the United States, and (ii) it will, and each subsequent holder of such Notes is required to, notify any purchasers of such Notes from it of the resale restrictions on such Notes.

3. Such Notes, unless the Issuer determines otherwise in compliance with applicable law, will bear a legend to the following effect:

   "THIS NOTE (OR ITS PREDECESSOR) AND THE GUARANTEE IN RESPECT HEREOF HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER, AND WERE ORIGINALLY ISSUED IN A TRANSACTION EXEMPT FROM REGISTRATION UNDER, THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND UNDER THE APPLICABLE STATE SECURITIES LAWS, AND MAY NOT BE OFFERED, RESOLD, PLEDGED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR AN APPLICABLE EXEMPTION THEREFROM. EACH PURCHASER OF THIS NOTE IS HEREBY NOTIFIED THAT THE SELLER OF THIS NOTE MAY BE RELYING ON THE EXEMPTION FROM THE PROVISIONS OF SECTION 5 OF THE SECURITIES ACT PROVIDED BY RULE 144A THEREUNDER. THE HOLDER OF THIS NOTE BY ITS ACCEPTANCE HEREOF REPRESENTS AND AGREES FOR THE BENEFIT OF THE ISSUER, THE GUARANTOR AND THE DEALERS THAT (A) THIS NOTE MAY BE RESOLD, PLEDGED OR OTHERWISE TRANSFERRED ONLY (1) TO THE GUARANTOR OR ANY OF ITS SUBSIDIARIES, (2) IN THE UNITED STATES TO A PERSON WHOM THE SELLER REASONABLY BELIEVES IS A QUALIFIED

INSTITUTIONAL BUYER (AS DEFINED IN RULE 144A UNDER THE SECURITIES ACT) IN A TRANSACTION MEETING THE REQUIREMENTS OF SUCH RULE 144A, (3) OUTSIDE THE UNITED STATES IN AN OFFSHORE TRANSACTION TO A NON-U.S. PERSON IN ACCORDANCE WITH REGULATION S UNDER THE SECURITIES ACT, OR (4) PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT PROVIDED BY RULE 144 THEREUNDER (IF AVAILABLE) AND IN EACH OF SUCH CASES IN ACCORDANCE WITH ANY APPLICABLE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES OR ANY OTHER JURISDICTION, AND THAT (B) THE HOLDER WILL, AND EACH SUBSEQUENT HOLDER IS REQUIRED TO, NOTIFY ANY PURCHASER OF THIS NOTE FROM IT OF THE TRANSFER RESTRICTIONS REFERRED TO IN (A) ABOVE. NO REPRESENTATION CAN BE MADE AS TO THE AVAILABILITY OF THE EXEMPTION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT FOR RESALES OF THIS NOTE."

4. It understands that the Issuer, the Guarantor, the Registrar, the Dealers and their affiliates, and others will rely upon the truth and accuracy of the foregoing acknowledgements, representations and agreements. If it is acquiring any Notes for the account of one or more QIBs it represents that it has sole investment discretion with respect to each such account and that it has full power to make the foregoing acknowledgements, representations and agreements on behalf of each such account.

5. It understands that the Notes offered in reliance on Rule 144A will be represented by the Restricted Global Note. Before any interest in the Restricted Global Note may be offered, sold, pledged or otherwise transferred to a person who takes delivery in the form of an interest in the Regulation S Global Note, it will be required to provide the Note Registrar as Transfer Agent with a written certification (in the form provided in the Indenture) as to compliance with applicable securities laws.

Prospective purchasers are hereby notified that sellers of the Notes may be relying on the exemption from the provisions of Section 5 of the Securities Act provided by Rule 144A.

Each Definitive Registered Note that is Offered and sold in the United States to an Institutional Accredited Investor pursuant to Section 4(a)(2) of the Securities Act or in a transaction otherwise exempt from registration under the Securities Act will bear a legend to the following effect, in addition to such other legends as may be necessary or appropriate, unless the Issuer determines otherwise in compliance with applicable law:

"THIS NOTE (OR ITS PREDECESSOR) AND THE GUARANTEE IN RESPECT HEREOF HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER, AND WERE ORIGINALLY ISSUED IN A TRANSACTION EXEMPT FROM REGISTRATION UNDER, THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND UNDER APPLICABLE STATE SECURITIES LAWS AND MAY NOT BE OFFERED, RESOLD, PLEDGED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR AN APPLICABLE EXEMPTION THEREFROM. EACH PURCHASER OF THIS NOTE ACKNOWLEDGES FOR THE BENEFIT OF THE ISSUER, THE GUARANTOR AND THE DEALERS THE RESTRICTIONS ON THE TRANSFER OF THIS NOTE SET FORTH BELOW AND AGREES THAT IT SHALL TRANSFER THIS NOTE ONLY AS PROVIDED IN THE INDENTURE ENTERED INTO BY THE ISSUER, THE GUARANTOR AND THE TRUSTEE AS OF OCTOBER 25, 2018. THE PURCHASER REPRESENTS THAT IT IS ACQUIRING THIS NOTE FOR INVESTMENT PURPOSES ONLY AND NOT WITH A VIEW TO ANY RESALE OR DISTRIBUTION HEREOF, SUBJECT TO ITS ABILITY TO RESELL THIS NOTE PURSUANT TO RULE 144A OR REGULATION S UNDER THE SECURITIES ACT OR AS OTHERWISE PROVIDED BELOW AND SUBJECT IN ANY CASE TO ANY REQUIREMENT OF LAW THAT THE DISPOSITION OF THE PROPERTY OF ANY PURCHASER SHALL AT ALL TIMES BE AND REMAIN WITHIN ITS CONTROL. EACH PURCHASER OF THIS NOTE IS HEREBY NOTIFIED THAT THE SELLER OF THIS NOTE MAY BE RELYING ON THE EXEMPTION FROM THE PROVISIONS OF SECTION 5 OF THE SECURITIES ACT PROVIDED BY RULE 144A THEREUNDER.

THE HOLDER OF THIS NOTE BY ITS ACCEPTANCE HEREOF AGREES TO OFFER, RESELL OR OTHERWISE TRANSFER SUCH NOTE, PRIOR TO THE DATE (THE "RESALE RESTRICTION TERMINATION DATE") WHICH IS ONE YEAR AFTER THE LATER OF THE ORIGINAL ISSUE DATE HEREOF AND THE LAST DATE ON WHICH THE ISSUER, THE GUARANTOR OR ANY AFFILIATE OF THE ISSUER OR THE GUARANTOR WAS THE OWNER OF THIS NOTE (OR ANY PREDECESSOR OF SUCH NOTE) ONLY (A) TO THE GUARANTOR OR ANY OF ITS SUBSIDIARIES, (B) PURSUANT TO A REGISTRATION STATEMENT WHICH HAS BEEN DECLARED EFFECTIVE UNDER THE SECURITIES ACT, (C) TO A PERSON IT REASONABLY BELIEVES IS A "QUALIFIED INSTITUTIONAL BUYER" AS DEFINED IN RULE 144A UNDER THE SECURITIES ACT THAT PURCHASES FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER TO WHOM NOTICE IS GIVEN THAT THE TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A, (D) IN AN OFFSHORE TRANSACTION IN ACCORDANCE WITH REGULATION S UNDER THE SECURITIES ACT, (E) TO AN INSTITUTIONAL "ACCREDITED INVESTOR" WITHIN THE MEANING OF RULE 501 (a)(1), (2), (3) or (7) UNDER THE SECURITIES ACT THAT IS ACQUIRING THE NOTE FOR ITS OWN ACCOUNT, OR FOR THE ACCOUNT OF SUCH AN INSTITUTIONAL "ACCREDITED INVESTOR," IN EACH CASE IN A MINIMUM PRINCIPAL AMOUNT OF THE NOTES OF U.S.$250,000 AND MULTIPLES OF U.S.$1,000 IN EXCESS THEREOF FOR INVESTMENT PURPOSES ONLY AND NOT WITH A VIEW TO, OR FOR OFFER OR RESALE IN CONNECTION WITH, ANY DISTRIBUTION IN VIOLATION OF THE SECURITIES ACT, (F) PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT PROVIDED BY RULE 144 (IF AVAILABLE) OR (G) PURSUANT TO ANOTHER AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT, SUBJECT TO THE ISSUER'S AND THE GUARANTOR'S RIGHT PRIOR TO ANY SUCH OFFER, SALE OR TRANSFER PURSUANT TO CLAUSES (E), (F) OR (G) TO REQUIRE THE DELIVERY OF AN OPINION OF COUNSEL, CERTIFICATION AND/OR OTHER INFORMATION SATISFACTORY TO THE ISSUER AND THE GUARANTOR, AND IN EACH OF THE FOREGOING CASES, A CERTIFICATE OF TRANSFER IN THE FORM APPEARING ON THE OTHER SIDE OF THIS NOTE IS COMPLETED AND DELIVERED BY THE TRANSFEROR TO THE TRUSTEE AND, IN EACH OF THE FOREGOING CASES, NOT IN VIOLATION OF ANY APPLICABLE STATE SECURITIES LAWS. THIS LEGEND WILL BE REMOVED UPON THE REQUEST OF THE HOLDER AFTER THE RESALE RESTRICTION TERMINATION DATE. THE HOLDER WILL, AND EACH SUBSEQUENT HOLDER IS REQUIRED TO, NOTIFY ANY PURCHASER OF THIS NOTE FROM IT OF THE TRANSFER RESTRICTIONS REFERRED TO IN THIS PARAGRAPH. NO REPRESENTATION CAN BE MADE AS TO AVAILABILITY OF THE EXEMPTION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT FOR RESALE OF THIS NOTE.

IF REQUESTED BY THE ISSUER, THE GUARANTOR OR BY A DEALER, THE PURCHASER AGREES TO PROVIDE THE INFORMATION NECESSARY TO DETERMINE WHETHER THE TRANSFER OF THIS NOTE IS PERMISSIBLE UNDER THE SECURITIES ACT. THIS NOTE AND RELATED DOCUMENTATION MAY BE AMENDED OR SUPPLEMENTED FROM TIME TO TIME TO MODIFY THE RESTRICTIONS ON AND PROCEDURES FOR RESALES AND OTHER TRANSFERS OF THIS NOTE TO REFLECT ANY CHANGE IN APPLICABLE LAW OR REGULATION (OR THE INTERPRETATION THEREOF) OR IN PRACTICES RELATING TO THE RESALES OR TRANSFERS OF RESTRICTED NOTES GENERALLY. BY THE ACCEPTANCE OF THIS NOTE, THE HOLDER HEREOF SHALL BE DEEMED TO HAVE AGREED TO ANY SUCH AMENDMENT OR SUPPLEMENT."

Each purchaser of Definitive Registered Notes will be required to deliver to the Issuer and the Security Registrar an IAI Investment Letter substantially in the form attached to the Indenture. The Definitive Registered Notes in definitive form will be subject to the transfer restrictions set forth in the above legend, such letter and in the Indenture. Inquiries concerning transfers of Notes should be made to any Dealer.

Regulation S Global Note

Each purchaser of Notes outside the United States pursuant to Regulation S and each subsequent purchaser of such Notes in resales prior to the expiration of the distribution compliance period (as defined in Regulation S), by accepting delivery of this Offering Circular and the Notes will be deemed to have represented, agreed and acknowledged that:

1. It is, or at the time Notes are purchased will be, the beneficial owner of such Notes and (a) it is not a U.S. person and it is located outside the United States (within the meaning of Regulation S) and (b) it is not an affiliate of the Issuer or the Guarantor or a person acting on behalf of such an affiliate.

2. It understands that such Notes have not been and will not be registered under the Securities Act and that, prior to the expiration of the distribution compliance period, it will not offer, sell, pledge or otherwise transfer such Notes except (a) in accordance with Rule 144A under the Securities Act to a person that it and any person acting on its behalf reasonably believe is a QIB purchasing for its own account or the account of a QIB or (b) in an offshore transaction to a non-U.S. person in accordance with Rule 903 or Rule 904 of Regulation S, in each case in accordance with any applicable securities laws of any State of the United States.

3. It understands that such Notes, unless otherwise determined by the Issuer in accordance with applicable law, will bear a legend to the following:

   "THIS NOTE (OR ITS PREDECESSOR) AND THE GUARANTEE IN RESPECT HEREOF HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER, AND WERE ORIGINALLY ISSUED IN A TRANSACTION EXEMPT FROM REGISTRATION UNDER, THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND APPLICABLE SECURITIES LAWS OF THE STATES AND OTHER JURISDICTIONS OF THE UNITED STATES, AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR AN APPLICABLE EXEMPTION THEREFROM. TERMS USED HEREIN HAVE THE MEANINGS GIVEN TO THEM IN REGULATION S UNDER THE SECURITIES ACT. UNTIL THE EXPIRY OF THE PERIOD OF 40 DAYS AFTER THE COMPLETION OF THE DISTRIBUTION OF ALL OF THE NOTES OF THE SERIES OF WHICH THIS NOTE FORMS PART, SALES MAY NOT BE MADE IN THE UNITED STATES OR TO, OR FOR THE ACCOUNT OR BENEFIT OF, U.S. PERSONS UNLESS MADE (I) PURSUANT TO RULE 903 OR 904 OF REGULATION S UNDER THE SECURITIES ACT OR (II) TO QUALIFIED INSTITUTIONAL BUYERS AS DEFINED IN, AND IN TRANSACTIONS PURSUANT TO, RULE 144A UNDER THE SECURITIES ACT."

4. It understands that the Issuer, the Guarantor, the Note Registrar, the Dealers and their affiliates, and others will rely upon the truth and accuracy of the foregoing acknowledgements, representations and agreements.

5. It understands that the Notes offered in reliance on Regulation S will be represented by the Regulation S Global Note. Prior to the expiration of the distribution compliance period, before any interest in the Restricted Global Note may be offered, sold, pledged or otherwise transferred to a person who takes delivery in the form of an interest in the Regulation S Global Note, it will be required to provide the Note Registrar as Transfer Agent with a written certification (in the form provided in the Indenture) as to compliance with applicable securities laws.

6. Delivery of the Notes may be made against payment therefor on or about a date which will occur more than three business days after the date of pricing of the Notes which date may be specified in the Pricing Supplement. Pursuant to Rule 15c6-1 under the U.S. Securities Exchange Act of 1934 (the "Exchange Act"), trades in the secondary market generally are required to settle in three business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade Notes on the date of pricing or the next succeeding business day will be required, by virtue of the fact that the Notes may initially settle on or about a date which will occur more than three business days after the date of pricing of the Notes to specify an alternate settlement cycle at the time of any such trade to prevent a failed settlement. Purchasers of Notes who wish to trade Notes on the date of pricing or the next succeeding business day should consult their own advisor.

LEGAL MATTERS

Legal matters in connection with the issue and sale of the Notes offered hereby will be passed upon for the Issuer and SP (i) by Allen & Gledhill LLP, legal advisor to the Issuer and SP, with respect to certain matters of Singapore law and (ii) by Latham & Watkins LLP, legal advisor to SP, with respect to certain matters of English law, New York law and the federal securities laws of the United States. Certain legal matters with respect to the Notes will be passed upon for the Arrangers and Dealers by Davis Polk & Wardwell as to matters of New York law and the federal securities laws of the United States.

RATINGS

The Guarantor has been assigned an overall corporate credit rating of "Aa2" by Moody's and "AA" by S&P. Any credit ratings accorded to the Guarantor or the Notes are not a recommendation to buy, sell or hold the Notes in as much as such ratings do not comment as to market price or suitability for investors. Credit ratings are subject to revision, suspension or withdrawal at any time by the assigning rating agency. Rating agencies may also revise or replace entirely the methodology applied to derive credit ratings. No assurances can be given that a credit rating will remain for any period of time or that a credit rating will not be lowered or withdrawn entirely by the relevant rating agency if in its judgment circumstances in the future so warrant or if a different methodology is applied to derive that credit rating. See "Risk Factors — Risks Related to SP Group's Business and Industry — A downgrade of the Guarantor's credit rating could have a material adverse effect on SP Group and on the price of the Notes" and "Risk Factors — Risks Related to the Notes — The Notes may not be rated and, if rated, their ratings could be lowered" for more details.

INDEPENDENT AUDITORS

The financial statements of SP Group as of and for the years ended March 31, 2016, March 31, 2017 and March 31, 2018 included in this Offering Circular have been audited by Ernst & Young LLP, Independent Auditors, as stated in their reports appearing herein.

GENERAL INFORMATION

1. The SP Group's principal offices are located at 2 Kallang Sector, Singapore 349277.

2. Each series of Bearer Notes will be initially represented by either a temporary global note or a permanent global note that will be deposited on the issue date thereof with CDP or a common depositary on behalf of Euroclear and Clearstream or any other agreed clearance system compatible with Euroclear and Clearstream. Registered Notes sold in an "Offshore transaction" to a non-"U.S. person" within the meaning of Regulation S will be initially represented by interests in a Regulation S Global Note and deposited on the issue date thereof with, and registered in the name of, CDP or a common depositary for, and registered in the name of a nominee of, Euroclear and Clearstream. The Common Code and the relevant ISIN number for each Bearer Series of Notes, together with the relevant Common Code, ISIN number and the CUSIP numbers for each Registered Series, will be contained in the Pricing Supplement relating thereto. In addition, the Issuer will make an application with respect to any Restricted Global Notes of a Registered Series to be accepted for trading in book-entry form by DTC. Acceptance of each Registered Series by DTC will be confirmed in the applicable Pricing Supplement.

3. Application has been made to the SGX-ST for permission to deal in and for quotation of any Notes which are agreed at the time of issue thereof to be so listed on the SGX-ST. There can be no assurance that the application to the SGX-ST for the listing of such Notes will be approved.

4. Each Bearer Note, Receipt, Coupon and Talon will bear the following legend: "Any United States person who holds this obligation will be subject to limitations under the United States income tax laws, including the limitations provided in Sections 165(j) and 1287(a) of the Internal Revenue Code."

5. The Issuer has agreed to furnish to investors upon request such information as may be required by Rule 144A(d)(4).

6. Ernst & Young LLP, Chartered Accountants have audited, and rendered unqualified audit reports on the accounts of SP Group as of and for the financial years ended March 31, 2016, March 31, 2017 and March 31, 2018, and have given their written consent to the issue of this document with the inclusion in it of their audit reports in the form and context in which they are respectively included. Such consents are different from consents filed with the U.S. Securities and Exchange Commission under Section 7 of the Securities Act, which is applicable only to transactions involving securities registered under the Securities Act. As Notes under the Program have not and will not be registered under the Securities Act Ernst & Young LLP, Chartered Accountants has not filed a consent under Section 7 of the Securities Act.

7. The Notes are freely tradable securities in accordance with the requirements of the listing rules of the SGX-ST. However, there are certain restrictions as to the offer, sale and transfer of the Notes as set out herein. See "Plan of Distribution" and "Notice to Purchasers and Holders of Registered Global Notes and Transfer Restrictions".

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INDEX TO FINANCIAL STATEMENTS

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Registration No. 199406577N

Singapore Power Limited and its subsidiaries

Annual Report
Year ended 31 March 2018

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Annual Report
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Directors' statement

We are pleased to submit this annual report to the member of Singapore Power Limited (the "Company") together with the audited financial statements for the financial year ended 31 March 2018.

Opinion of the Directors

In our opinion,

(a) the financial statements set out on pages 8 to 86 are drawn up so as to give a true and fair view of the financial position of the Company and its subsidiaries (the "Group") as at 31 March 2018 and the financial performance, changes in equity and cash flows of the Group and of the financial performance and changes in equity of the Company for the year ended on that date in accordance with the provisions of the Singapore Companies Act, Chapter 50 (the "Act") and Singapore Financial Reporting Standards; and

(b) at the date of this statement, there are reasonable grounds to believe that the Company will be able to pay its debts as and when they fall due.

Directors

The directors in office at the date of this statement are as follows:

Tan Sri Mohd Hassan Marican
Mr Tan Chee Meng
Mr Choi Shing Kwok
Mrs Oon Kum Loon
Mr Tan Puay Chiang
Mr Ong Yew Huat
Mr Timothy Chia Chee Ming
Mr Ng Kwan Meng
Mr Tan Kang Uei, Anthony (Appointed on 1 October 2017)
Mr Wong Kim Yin

Directors' interests

According to the register kept by the Company for the purposes of Section 164 of the Act, particulars of interests of directors who held office at the end of the financial year (including those held by their spouses and infant children) in shares, debentures, warrants and share options in the Company and in related corporations are as follows:

Name of director and related corporations in which interests (fully paid ordinary shares unless otherwise stated) are held	**Holdings at beginning of the year / date of appointment**	**Holdings at end of the year**
Mr Choi Shing Kwok		
Singapore Telecommunications Limited	2,720	62,720
Olam International Limited – 6% notes due 2018	S$500,000	S$500,000

Name of director and related corporations in which interests (fully paid ordinary shares unless otherwise stated) are held	Holdings at beginning of the year / date of appointment	Holdings at end of the year
Mrs Oon Kum Loon		
Singapore Telecommunications Limited	2,720	2,720
Mapletree Industrial Trust - units	8,894	8,894
Mr Tan Puay Chiang		
Singapore Airlines Limited	10,000	10,000
Singapore Technologies Engineering Limited	150,000	150,000
Singapore Telecommunications Limited	133,570	133,570
Mapletree Industrial Trust - units	12,000	12,000
Mapletree Treasury Services Limited		
- 3.88% notes due on 4 October 2018	S$250,000	S$250,000
- 5.125% Perpetual securities	S$250,000	–
Mapletree Commercial Trust Treasury Company Pte. Ltd.		
- 2.795% fixed rate notes due on 15 November 2023	S$250,000	S$250,000
Singapore Technologies Telemedia Pte Ltd		
- 4.05% notes due on 2 December 2025	S$250,000	S$250,000
Mr Ong Yew Huat		
Singapore Telecommunications Limited	50,000	50,000
Mr Timothy Chia Chee Ming		
Singapore Telecommunications Limited	2,070	2,070

Name of director and related corporations in which interests (fully paid ordinary shares unless otherwise stated) are held	Holdings at beginning of the year / date of appointment	Holdings at end of the year
Mr Ng Kwan Meng		
Singapore Telecommunications Limited	5,350	25,350
Singapore Technologies Engineering Ltd	25,000	25,000
Starhub Ltd	6,000	6,000
Mapletree Commercial Trust - units	10,000	10,000
Mapletree Greater China Commercial Trust - units	22,000	22,000
Mapletree Industrial Trust - units	10,000	10,000
Ascendas Real Estate Investment Trust - units	10,000	10,000
Mr Tan Kang Uei, Anthony		
SIA Engineering Co Ltd	1,000	1,000
Singapore Airlines Limited	1,000	1,000
Singapore Telecommunications Limited	892	892
Mr Wong Kim Yin		
Singapore Telecommunications Limited	190	190
Mapletree Industrial Trust - units	30,506	30,506

Except as disclosed in this statement, no director who held office at the end of the financial year had interests in shares, debentures, warrants or share options of the Company, or of related corporations, either at the beginning, at the date of appointment or at the end of the financial year.

Neither at the end of, nor at any time during the financial year, was the Company a party to any arrangement whose objects are, or one of whose objects is, to enable the directors of the Company to acquire benefits by means of the acquisition of shares or debentures of the Company or any other body corporate.

Share options

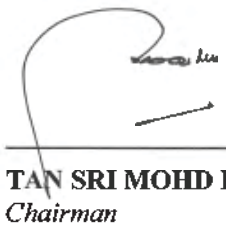
During the financial year, there were:

(i) no options granted by the Company or its subsidiaries to any person to take up unissued shares in the Company; and

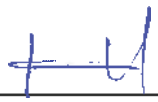
(ii) no shares issued by virtue of any exercise of option to take up unissued shares of the Company or its subsidiaries.

As at the end of the financial year, there were no unissued shares of the Company or its subsidiaries under option.

On behalf of the Board of Directors



TAN SRI MOHD HASSAN MARICAN
Chairman



MR WONG KIM YIN
Director / Group Chief Executive Officer

21 May 2018

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Building a better working world

Independent Auditor's Report
For the financial year ended 31 March 2018

Independent Auditor's Report to the Member of Singapore Power Limited

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying financial statements of Singapore Power Limited ("the Company") and its subsidiaries ("the Group") set out on pages 8 to 86, which comprise the consolidated balance sheet of the Group and the balance sheet of the Company as at 31 March 2018, the consolidated income statement, statement of comprehensive income, statement of changes in equity and statement of cash flows of the Group and the income statement, statement of comprehensive income and statement of changes in equity of the Company for the financial year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements of the Group, the balance sheet, income statement, statement of comprehensive income and statement of changes in equity of the Company are properly drawn up in accordance with the provisions of the Companies Act, Chapter 50 ("the Act") and Financial Reporting Standards in Singapore ("FRSs") so as to give a true and fair view of the consolidated financial position of the Group and the financial position of the Company as at 31 March 2018 and of the consolidated financial performance, consolidated changes in equity and consolidated cash flows of the Group and financial performance and changes in equity of the Company for the year ended on that date.

Basis for Opinion

We conducted our audit in accordance with Singapore Standards on Auditing ("SSAs"). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Group in accordance with the Accounting and Corporate Regulatory Authority ("ACRA") Code of Professional Conduct and Ethics for Public Accountants and Accounting Entities ("ACRA Code") together with the ethical requirements that are relevant to our audit of the financial statements in Singapore, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the ACRA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Information

Management is responsible for other information. The other information comprises the directors' statement.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Management and Directors for the Financial Statements

Management is responsible for the preparation of financial statements that give a true and fair view in accordance with the provisions of the Act and FRSs, and for devising and maintaining a system of internal accounting controls sufficient to provide a reasonable assurance that assets are safeguarded against loss from unauthorised use or disposition; and transactions are properly authorised and that they are recorded as necessary to permit the preparation of true and fair financial statements and to maintain accountability of assets.

In preparing the financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The directors' responsibilities include overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with SSAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on Other Legal and Regulatory Requirements

In our opinion, the accounting and other records required by the Act to be kept by the Company and by those subsidiaries incorporated in Singapore of which we are the auditors have been properly kept in accordance with the provisions of the Act.

Ernst & Young LLP

Ernst & Young LLP

Public Accountants and
Chartered Accountants
Singapore

21 May 2018

Balance sheets
As at 31 March 2018

	Note	Group 2018 $ million	Group 2017 $ million	Company 2018 $ million	Company 2017 $ million
Non-current assets					
Property, plant and equipment	4	12,485.6	11,713.6	12.6	13.3
Intangible assets	5	173.8	141.6	12.8	8.1
Investment property	6	712.9	–	–	–
Subsidiaries	7	–	–	6,765.0	6,764.9
Associates and joint ventures	8	2,843.8	2,994.7	45.4	1.3
Other non-current assets	9	498.2	428.1	166.5	78.6
Deferred tax assets	10	21.2	29.2	–	–
Derivative assets	11	48.8	106.4	2.5	0.2
Available-for-sale financial assets	12	155.6	165.8	146.7	160.3
		16,939.9	15,579.4	7,151.5	7,026.7
Current assets					
Available-for-sale financial assets	12	–	29.6	–	29.6
Inventories	13	44.2	49.0	–	–
Trade and other receivables	14	526.4	431.0	4,183.5	3,951.4
Derivative assets	11	17.0	2.4	9.7	0.2
Cash and cash equivalents	15	1,634.6	1,677.1	593.5	878.0
Assets held-for-sale	16	–	37.6	–	90.0
		2,222.2	2,226.7	4,786.7	4,949.2
Total assets		19,162.1	17,806.1	11,938.2	11,975.9
Equity					
Share capital	17	2,911.9	2,911.9	2,911.9	2,911.9
Reserves	18	(398.6)	(187.4)	(0.6)	3.2
Accumulated profits		7,710.6	7,068.3	5,252.8	5,152.1
Total equity, attributable to owner of the Company		10,223.9	9,792.8	8,164.1	8,067.2
Non-current liabilities					
Debt obligations	19	4,239.1	4,147.5	–	–
Derivative liabilities	11	230.7	92.9	2.0	8.1
Deferred tax liabilities	10	1,334.7	1,284.2	1.2	0.2
Other non-current liabilities	20	937.5	704.2	–	–
		6,742.0	6,228.8	3.2	8.3
Current liabilities					
Debt obligations	19	532.3	139.7	–	–
Derivative liabilities	11	2.8	15.3	0.1	6.7
Current tax payable		172.5	161.4	12.3	14.7
Trade and other payables	21	1,488.6	1,451.3	3,758.5	3,879.0
Liabilities held-for-sale	16	–	16.8	–	–
		2,196.2	1,784.5	3,770.9	3,900.4
Total liabilities		8,938.2	8,013.3	3,774.1	3,908.7
Total equity and liabilities		19,162.1	17,806.1	11,938.2	11,975.9

The accompanying notes form an integral part of these financial statements.

Income statements
Year ended 31 March 2018

	Note	Group		Company	
		2018 $ million	2017 $ million	2018 $ million	2017 $ million
Revenue	22	4,067.7	3,722.0	532.8	533.7
Other income	23	185.6	189.0	8.9	1.2
Expenses					
- Purchased power		(1,972.9)	(1,803.6)	–	–
- Depreciation of property, plant and equipment		(579.2)	(548.5)	(3.0)	(4.8)
- Amortisation of intangible assets		(32.1)	(34.4)	(2.7)	(2.7)
- Maintenance		(99.2)	(99.0)	(3.3)	(4.8)
- Staff costs		(292.0)	(297.6)	(74.5)	(74.8)
- Property taxes		(54.5)	(55.3)	(0.3)	(0.3)
- Other operating expenses		(120.7)	(122.1)	(20.2)	(22.3)
Operating profit		1,102.7	950.5	437.7	425.2
Finance income	24	68.5	65.6	65.8	65.5
Finance costs	25	(123.5)	(102.2)	(11.9)	(12.7)
Share of profit of associates, net of tax		177.4	216.4	–	–
Share of (loss)/profit of joint ventures, net of tax		(5.8)	1.7	–	–
Profit before taxation		1,219.3	1,132.0	491.6	478.0
Tax expense	26	(197.0)	(183.2)	(10.9)	(13.5)
Profit for the year, attributable to owner of the Company	27	1,022.3	948.8	480.7	464.5

The accompanying notes form an integral part of these financial statements.

Statements of comprehensive income
Year ended 31 March 2018

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Profit for the year	1,022.3	948.8	480.7	464.5
Other comprehensive income				
items that will not be reclassified to profit or loss:				
Share of defined benefit plan remeasurements of associates	8.6	11.2	–	–
	8.6	11.2	–	–
Items that are or may be reclassified subsequently to profit or loss:				
Translation differences relating to financial statements of foreign operations	(184.8)	101.4	–	–
Effective portion of changes in fair value of cash flow hedges, net of tax	(4.1)	(13.2)	(0.6)	3.3
Net change in fair value of:				
– Cash flow hedges reclassified to profit or loss, net of tax	8.9	(3.8)	0.3	0.3
– Cash flow hedges on recognition of the hedged items on balance sheet, net of tax	(1.8)	(1.8)	(0.8)	(0.2)
– Available-for-sale financial assets	(1.0)	0.2	(2.7)	(0.1)
Share of hedging reserves of associates	(37.0)	32.4	–	–
	(219.8)	115.2	(3.8)	3.3
Other comprehensive income for the year, net of tax	(211.2)	126.4	(3.8)	3.3
Total comprehensive income for the year, attributable to owner of the Company	811.1	1,075.2	476.9	467.8

The accompanying notes form an integral part of these financial statements.

Statements of changes in equity
Year ended 31 March 2018

Group	Share capital $ million	Currency translation reserve $ million	Hedging reserve $ million	Other reserves $ million	Accumulated profits $ million	Total equity, attributable to owner of the Company $ million
At 1 April 2016	2,911.9	(326.9)	5.2	7.9	6,489.5	9,087.6
Total comprehensive income for the year						
Profit for the year	–	–	–	–	948.8	948.8
Other comprehensive income						
Translation differences relating to financial statements of foreign operations	–	101.4	–	–	–	101.4
Effective portion of changes in fair value of cash flow hedges, net of tax	–	–	(13.2)	–	–	(13.2)
Net change in fair value of cash flow hedges:						
- reclassified to profit or loss, net of tax	–	–	(3.8)	–	–	(3.8)
- on recognition of the hedged items on balance sheet, net of tax	–	–	(1.8)	–	–	(1.8)
Net change in fair value of available-for-sale financial assets	–	–	–	0.2	–	0.2
Share of other comprehensive income of associates	–	–	32.4	11.2	–	43.6
Total other comprehensive income	–	101.4	13.6	11.4	–	126.4
Total comprehensive income for the year	–	101.4	13.6	11.4	948.8	1,075.2
Transactions with owner, recognised directly in equity						
Distribution to owner						
Dividends declared (Note 33)	–	–	–	–	(370.0)	(370.0)
Total transactions with owner	–	–	–	–	(370.0)	(370.0)
At 31 March 2017	2,911.9	(225.5)	18.8	19.3	7,068.3	9,792.8

The accompanying notes form an integral part of these financial statements.

Statements of changes in equity
Year ended 31 March 2018

Group	Share capital $ million	Currency translation reserve $ million	Hedging reserve $ million	Other reserves $ million	Accumulated profits $ million	Total equity, attributable to owner of the Company $ million
At 1 April 2017	2,911.9	(225.5)	18.8	19.3	7,068.3	9,792.8
Total comprehensive income for the year						
Profit for the year	–	–	–	–	1,022.3	1,022.3
Other comprehensive income						
Translation differences relating to financial statements of foreign operations	–	(184.8)	–	–	–	(184.8)
Effective portion of changes in fair value of cash flow hedges, net of tax	–	–	(4.1)	–	–	(4.1)
Net change in fair value of cash flow hedges:						
- reclassified to profit or loss, net of tax	–	–	8.9	–	–	8.9
- on recognition of the hedged items on balance sheet, net of tax	–	–	(1.8)	–	–	(1.8)
Net change in fair value of available-for-sale financial assets	–	–	–	(1.0)	–	(1.0)
Share of other comprehensive income of associates	–	–	(37.0)	8.6	–	(28.4)
Total other comprehensive income	–	(184.8)	(34.0)	7.6	–	(211.2)
Total comprehensive income for the year	–	(184.8)	(34.0)	7.6	1,022.3	811.1
Transactions with owner, recognised directly in equity						
Distribution to owner						
Dividends declared (Note 33)	–	–	–	–	(380.0)	(380.0)
Total transactions with owner	–	–	–	–	(380.0)	(380.0)
At 31 March 2018	2,911.9	(410.3)	(15.2)	26.9	7,710.6	10,223.9

The accompanying notes form an integral part of these financial statements.

Statements of changes in equity
Year ended 31 March 2018

Company	Share capital $ million	Hedging reserve $ million	Other reserves $ million	Accumulated profits $ million	Total $ million
At 1 April 2016	2,911.9	(2.0)	1.9	5,057.6	7,969.4
Total comprehensive income for the year					
Profit for the year	–	–	–	464.5	464.5
Other comprehensive income					
Effective portion of changes in fair value of cash flow hedges, net of tax	–	3.3	–	–	3.3
Net change in fair value of:					
- cash flow hedges reclassified to profit or loss, net of tax	–	0.3	–	–	0.3
- cash flow hedges on recognition of the hedged items on balance sheet, net of tax	–	(0.2)	–	–	(0.2)
- available-for-sale financial assets	–	–	(0.1)	–	(0.1)
Total other comprehensive income	–	3.4	(0.1)	–	3.3
Total other comprehensive income for the year	–	3.4	(0.1)	464.5	467.8
Transactions with owner, recognised directly in equity					
Dividends declared (Note 33)	–	–	–	(370.0)	(370.0)
Total transactions with owner	–	–	–	(370.0)	(370.0)
At 31 March 2017	2,911.9	1.4	1.8	5,152.1	8,067.2
At 1 April 2017	2,911.9	1.4	1.8	5,152.1	8,067.2
Total comprehensive income for the year					
Profit for the year	–	–	–	480.7	480.7
Other comprehensive income					
Effective portion of changes in fair value of cash flow hedges, net of tax	–	(0.6)	–	–	(0.6)
Net change in fair value of:					
- cash flow hedges reclassified to profit or loss, net of tax	–	0.3	–	–	0.3
- cash flow hedges on recognition of the hedged items on balance sheet, net of tax	–	(0.8)	–	–	(0.8)
- available-for-sale financial assets	–	–	(2.7)	–	(2.7)
Total other comprehensive income	–	(1.1)	(2.7)	–	(3.8)
Total other comprehensive income for the year	–	(1.1)	(2.7)	480.7	476.9
Transactions with owner, recognised directly in equity					
Dividends declared (Note 33)	–	–	–	(380.0)	(380.0)
Total transactions with owner	–	–	–	(380.0)	(380.0)
At 31 March 2018	2,911.9	0.3	(0.9)	5,252.8	8,164.1

The accompanying notes form an integral part of these financial statements.

Consolidated statement of cash flows
Year ended 31 March 2018

	Note	2018 $ million	2017 $ million
Cash flows from operating activities			
Profit for the year		1,022.3	948.8
Adjustments for:			
Deferred income		(140.0)	93.6
Depreciation and amortisation		611.3	582.9
Finance costs	25	123.5	102.2
Finance income	24	(68.5)	(65.6)
Exchange loss/(gain)	27	9.4	(8.2)
Loss on disposal of property, plant and equipment and intangible assets		3.2	6.5
Impairment loss on property, plant and equipment		1.6	–
Share of profit of associates and joint ventures, net of tax		(171.6)	(218.1)
Gain on disposal of subsidiary	8	(5.5)	–
Tax expense	26	197.0	183.2
Others		5.3	0.9
		1,588.0	1,626.2
Changes in working capital:			
Inventories		2.2	2.0
Trade and other receivables		(121.5)	(35.6)
Balances with related parties (trade)		(10.1)	14.6
Trade and other payables		(10.4)	0.5
Cash generated from operations		1,448.2	1,607.7
Interest received		65.7	60.4
Net tax paid		(111.0)	(100.5)
Net cash generated from operating activities		1,402.9	1,567.6
Cash flows from investing activities			
Purchase of property, plant and equipment		(1,232.4)	(1,236.5)
Purchase of intangible assets		(53.7)	(45.0)
Proceeds from disposal of property, plant and equipment and intangible assets		8.3	10.2
Dividends received from associates and joint venture		163.4	128.3
Proceeds from disposal of other investments		–	13.8
Proceeds from redemption of other investment		32.0	–
Additions to investment property		(488.2)	–
Acquisition of other investments		(1.6)	(5.1)
Net cash outflow on disposal of subsidiary	8	(27.8)	–
Net cash used in investing activities		(1,600.0)	(1,134.3)

The accompanying notes form an integral part of these financial statements.

Consolidated statement of cash flows (continued)
Year ended 31 March 2018

	Note	2018 $ million	2017 $ million
Cash flows from financing activities			
Proceeds from loans and debt obligations		842.1	79.9
Repayment of debt obligations		(139.4)	–
Dividends paid to owner of the Company		(380.0)	(370.0)
Interest paid		(123.3)	(116.1)
Commitment fees paid		(2.8)	(3.0)
Net cash generated from/(used in) financing activities		196.6	(409.2)
Net (decrease)/increase in cash and cash equivalents		(0.5)	24.1
Cash and cash equivalents at beginning of the year		1,677.1	1,630.2
Effect of exchange rate changes on balances held in foreign currencies		(42.0)	22.8
Cash and cash equivalents at end of the year	15	1,634.6	1,677.1

The accompanying notes form an integral part of these financial statements.

Notes to the financial statements

These notes form an integral part of the financial statements.

The financial statements were authorised for issue by the Board of Directors on 21 May 2018.

1 Domicile and activities

Singapore Power Limited ("the Company") is incorporated in the Republic of Singapore and has its registered office at 2 Kallang Sector, SP Group Building, Singapore 349277. The immediate and ultimate holding company is Temasek Holdings (Private) Limited, a company incorporated in the Republic of Singapore.

The principal activities of the Company are that of investment holding and provision of management support services. Its subsidiaries are engaged principally in the transmission and distribution of electricity and gas, provision of related consultancy services and investments in related projects.

The consolidated financial statements relate to the Company and its subsidiaries (together referred to as the Group) and the Group's interests in associates and joint ventures (collectively referred to as Group entities).

2 Basis of preparation

2.1 Statement of compliance

The financial statements have been prepared in accordance with the Singapore Financial Reporting Standards ("FRS").

2.2 Basis of measurement

The financial statements have been prepared on the historical cost basis except as disclosed in the accounting policies set out below.

2.3 Functional and presentation currency

These financial statements are presented in Singapore dollars, which is the Company's functional currency. All financial information presented in Singapore dollars has been rounded to the nearest 0.1 million, unless otherwise stated.

2.4 Use of estimates and judgements

The preparation of financial statements in conformity with FRSs requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making judgements about carrying amounts of assets and liabilities that are not readily apparent from other sources.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimates are revised and in any future periods affected.

Information about critical judgements in applying accounting policies that have the most significant effect on the amounts recognised in the financial statements is discussed below:

Taxation

The Group is subject to taxes mainly in Singapore and Australia. Significant judgement is required in determining provision for taxes. There are many transactions and calculations during the ordinary course of business for which the ultimate tax determination is uncertain. The Group recognises liabilities for anticipated tax audit issues based on estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the income tax and deferred tax provisions in the period in which such determination is made. Details are set out in Note 10 and Note 26.

Information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment within the next financial year are discussed below:

Impairment of associates

Impairment reviews in respect of associates are performed at least annually or when there is any indication that the investment in associates may be impaired. More regular reviews are performed if changes in circumstances or the occurrence of events indicate potential impairment. The Group uses the present value of future cash flows to determine the recoverable amounts of the underlying cash generating units in the associates. In calculating the recoverable amounts, significant management judgement is required in forecasting cash flows of the cash generating units, in estimating the terminal growth values and in selecting an appropriate discount rate.

Useful lives of property, plant and equipment

Assumptions made regarding the useful lives are based on the regulatory environment and technological developments. These assumptions are subject to risk and there is the possibility that changes in circumstances will alter expectations.

Estimating fair values of financial assets and financial liabilities

The fair value of financial assets and financial liabilities must be estimated for recognition, measurement and disclosure purposes. Note 31 sets out the basis of valuation of financial assets and liabilities.

Accrued revenue

Revenue accrual estimates are made to account for the unbilled period between the end-user's last billing date and the end of the accounting period. The accrual relies on detailed analysis of customers' historical consumption patterns, which takes into account base usage and sensitivity to consumption growth. The results of this analysis are applied for the number of days over the unbilled period.

Revenue recognition

Revenue recognised, from use of system charges and transportation of gas, is estimated based on revenue allowed by the Energy Market Authority ("EMA") (in accordance with the price regulation framework), taking into consideration the services rendered and volume of electricity, gas or services delivered to consumers. Note 3.18 sets out the revenue recognition policy.

2.5 Convergence with International Financial Reporting Standards

The Group will adopt Singapore Financial Reporting Standards (International) ("SFRS(I)s"), Singapore's equivalent of the International Financial Reporting Standards ("IFRSs") on 1 April 2018.

The Group has performed an initial assessment of the impact of adopting the new financial reporting framework, and expects no material impact arising from the adoption. The Group expects that the impact of adopting the new standards under the new framework that are effective on 1 April 2018 will be similar to that as disclosed in Note 3.23 under the current framework.

2.6 Changes in accounting policies

Adoption of new and revised FRSs and Interpretation to FRS

The accounting policies adopted are consistent with those of the previous financial year except that in the current financial year, the Group has adopted all the new and revised standards which are effective for annual financial periods beginning on or after 1 April 2017, including the Amendments to FRS 7 *Disclosure Initiative*. The adoption of these new standards did not have any effect on the financial performance or position of the Group and the Company.

3 Significant accounting policies

The accounting policies set out below have been applied consistently for all periods presented in these financial statements, and have been consistently applied by the Group entities, which addresses changes in accounting policies due to the adoption of new and revised standards.

3.1 Basis of consolidation

Business combinations

Business combinations are accounted for using the acquisition method as at the acquisition date, which is the date on which control is transferred to the Group. Control is the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities. In assessing control, the Group takes into consideration potential voting rights that are currently exercisable.

The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts are generally recognised in profit or loss.

Costs related to the acquisition, other than those associated with the issue of debt or equity securities, that the Group incurs in connection with a business combination are expensed as incurred.

Any contingent consideration payable is recognised at fair value at the acquisition date and included in the consideration transferred. If the contingent consideration is classified as equity, it is not remeasured and settlement is accounted for within equity. Otherwise, subsequent changes to the fair value of the contingent consideration are recognised in profit or loss.

For non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the acquiree's net assets in the event of liquidation, the Group elects on a transaction-by-transaction basis whether to measure them at fair value, or at the non-controlling interests' proportionate share of the recognised amounts of the acquiree's identifiable net assets, at the acquisition date. All other non-controlling interests are measured at acquisition-date fair value, or, when applicable, on the basis specified in another standard.

Any excess or deficiency of the purchase consideration over the fair value of the identifiable assets acquired and liabilities and contingent liabilities assumed is accounted for as goodwill or bargain purchase gain (see Note 3.4).

Subsidiaries

Subsidiaries are entities controlled by the Group. The Group controls an investee when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.

In the Company's separate financial statements, investments in subsidiaries are accounted for at cost less impairment losses.

The accounting policies of subsidiaries have been changed when necessary to align them with the policies adopted by the Group. Losses applicable to the non-controlling interests in a subsidiary are allocated to the non-controlling interests even if doing so causes the non-controlling interests to have a deficit balance.

Loss of control

Upon the loss of control, the Group derecognises the assets and liabilities of the subsidiary, any non-controlling interests and the other components of equity related to the subsidiary. Any surplus or deficit arising on the loss of control is recognised in profit or loss. If the Group retains any interest in the previous subsidiary, then such interest is measured at fair value at the date that control is lost. Subsequently, it is accounted for as an equity-accounted investee or as an available-for-sale financial asset depending on the level of influence retained.

Joint arrangements

A joint arrangement is a contractual arrangement whereby two or more parties have joint control. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

To the extent the joint arrangement provides the Group with rights to the assets and obligations for the liabilities relating to the arrangement, the arrangement is a joint operation. To the extent the joint arrangement provides the Group with rights to the net assets of the arrangement, the arrangement is a joint venture.

The Group recognises its interest in a joint venture as an investment and accounts for the investment using the equity method. The accounting policy for investment in joint venture is set out below.

Investments in associates and joint ventures (equity-accounted investees)

An associate is an entity over which the Group has the power to participate in the financial and operating policy decisions of the investee but does not have control or joint control of those policies.

Investments in associates and joint ventures are accounted for using the equity method (equity-accounted investees) and are recognised initially at cost. The Group's investments in equity-accounted investees include goodwill identified on acquisition, net of any accumulated impairment losses.

The consolidated financial statements include the Group's share of the profit or loss and other comprehensive income of the equity-accounted investees, after adjustments to align the accounting policies of the equity-accounted investees with those of the Group, from the date that significant influence or joint control commences until the date that significant influence or joint control ceases.

When the Group's share of losses exceeds its interest in an equity-accounted investee, the carrying amount of the investment, together with any long-term interests that form part thereof, is reduced to zero and the recognition of further losses is discontinued except to the extent that the Group has an obligation to fund the investee's operations or has made payments on behalf of the investee.

Acquisition of non-controlling interests

Acquisitions of non-controlling interests are accounted for as transactions with owners in their capacity as owners and therefore no goodwill is recognised as a result of such transactions. The adjustments to non-controlling interests arising from transactions that do not involve the loss of control are based on a proportionate amount of the net assets of the subsidiary. Any difference between the adjustment to non-controlling interests and the fair value of consideration paid is recognised directly in equity and presented as part of equity attributable to owners of the Company.

Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealised income or expenses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements. Unrealised gains arising from transactions with equity-accounted investees are eliminated against the investment to the extent of the Group's interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

Accounting for subsidiaries and joint ventures by the Company

Investments in subsidiaries and joint ventures are stated in the Company's balance sheet at cost less accumulated impairment losses.

3.2 Foreign currencies

Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of Group entities at the exchange rates at the dates of the transactions. The functional currencies of the Group entities are mainly Singapore dollars and Australian dollars. Monetary assets and liabilities denominated in foreign currencies at the reporting date are retranslated to the functional currencies at the exchange rate at the reporting date. The foreign currency gain or loss on monetary items is the difference between amortised cost in the functional currency at the beginning of the year, adjusted for effective interest and payments during the year, and the amortised cost in foreign currency translated at the exchange rate at the end of the year. Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are retranslated to the functional currency at the exchange rate prevailing on the date on which the fair value was determined. Non-monetary items in a foreign currency that are measured in terms of historical cost are translated using the exchange rate at the date of the transaction.

Foreign currency differences arising on translation are recognised in profit or loss, except for differences arising on the translation of a financial liability designated as a hedge of the net investment in a foreign operation that is effective, available-for-sale equity instruments (see Note 3.6), or qualifying cash flow hedges which are recognised in other comprehensive income.

Foreign operations

The assets and liabilities of foreign operations, excluding goodwill and fair value adjustments arising on acquisition, are translated to Singapore dollars for presentation in these financial statements at exchange rates at the reporting date. The income and expenses of foreign operations are translated to Singapore dollars at exchange rates at the dates of the transactions. Goodwill and fair value adjustments arising on the acquisition of foreign operations on or after 1 January 2005 are treated as assets and liabilities of the foreign operations and translated at the closing rate. For acquisitions prior to 1 January 2005, the exchange rates at the date of acquisition were used.

Foreign currency differences are recognised in other comprehensive income, and presented in the foreign currency translation reserve ("translation reserve") in equity. However, if the foreign operation is a non-wholly-owned subsidiary, then the relevant proportionate share of the translation difference is allocated to the non-controlling interests. When a foreign operation is disposed of, such that control, significant influence or joint control is lost, the cumulative amount in the translation reserve related to that foreign operation is reclassified to profit or loss as part of the gain or loss on disposal. When the Group disposes of only part of its interest in a subsidiary that includes a foreign operation while retaining control, the relevant proportion of the cumulative amount is reattributed to non-controlling interests. When the Group disposes of only part of its investment in an associate or joint venture that includes a foreign operation while retaining significant influence or joint control, the relevant proportion of the cumulative amount is reclassified to profit or loss.

When the settlement of a monetary item receivable from or payable to a foreign operation is neither planned nor likely in the foreseeable future, foreign exchange gains and losses arising from such a monetary item are considered to form part of a net investment in a foreign operation. These are recognised in other comprehensive income, and are presented in the translation reserve in equity.

3.3 Property, plant and equipment

Recognition and measurement

Property, plant and equipment are stated at cost less accumulated depreciation and accumulated impairment losses.

Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials and direct labour, any other costs directly attributable to bringing the asset to a working condition for their intended use, and the costs of dismantling and removing the items and restoring the site on which they are located and capitalised borrowing cost. Capitalisation of borrowing costs will cease when the asset is ready for its intended use, which is defined by the commencement of revenue earning. Cost may also include transfers from equity of any gain or loss on qualifying cash flow hedges of foreign currency purchases of property, plant and equipment.

Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

The gain or loss on disposal of an item of property, plant and equipment is determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment, and is recognised net within other income/other operating expenses in profit or loss.

Subsequent costs

The cost of replacing a component of an item of property, plant and equipment is recognised in the carrying amount of the item if it is probable that the future economic benefits embodied within the component will flow to the Group, and its cost can be measured reliably. The carrying amount of the replaced component is derecognised. The costs of the day-to-day servicing of property, plant and equipment are recognised in profit or loss as incurred.

Depreciation

Depreciation is based on the cost of an asset less its residual value. Significant components of individual assets are assessed and if a component has a useful life that is different from the remainder of that asset, that component is depreciated separately.

Depreciation is recognised in profit or loss on a straight-line basis over the estimated useful lives of each component of an item of property, plant and equipment. Leased assets are depreciated over the shorter of the lease term and their useful lives unless it is reasonably certain that the Group will obtain ownership by the end of the lease term. Freehold land and construction-in-progress are not depreciated.

The estimated useful lives for the current and comparative periods are as follows:

Leasehold land	Over the term of the lease, ranging from 13 – 99 years
Leasehold buildings	3 – 40 years or the lease term, if shorter
Plant and machinery	
- Mains (Electricity)	20 – 30 years
- Mains (Gas)	20 – 50 years
- Transformers and switchgear	20 – 30 years
Other plant and equipment (principally gas storage plant, remote control and meters)	2 – 40 years
Motor vehicles and office equipment	2 – 10 years

Depreciation methods, useful lives and residual values are reviewed at each financial year end, and adjusted if appropriate.

3.4 Intangible assets

Goodwill

Goodwill that arises upon the acquisition of subsidiaries is included in intangible assets and represents the excess of:

- the fair value of the consideration transferred; plus
- the recognised amount of any non-controlling interests in the acquiree; plus
- if the business combination is achieved in stages, the fair value of the pre-existing equity interest in the acquiree,

over the net recognised amount (generally fair value) of the identifiable assets acquired and liabilities assumed.

When the excess is negative, a bargain purchase gain is recognised immediately in profit or loss.

Subsequent measurement

Goodwill is measured at cost less accumulated impairment losses. In respect of equity-accounted investees, the carrying amount of goodwill is included in the carrying amount of the investment, and an impairment loss on such an investment is not allocated to any asset, including goodwill, that forms part of the carrying amount of the equity-accounted investee.

Other intangible assets

Other intangible assets with finite useful lives are measured at cost less accumulated amortisation and accumulated impairment losses. Expenditure on internally generated goodwill is recognised in profit or loss as an expense when incurred.

Intangible assets that have indefinite lives or that are not available for use are stated at cost less accumulated impairment losses.

Software is stated at cost less accumulated amortisation and accumulated impairment losses. Amortisation is recognised in profit or loss on a straight-line basis over the estimated useful life of 5 to 10 years.

Deferred expenditure relates mainly to contributions paid by the Group in accordance with regulatory requirements towards capital expenditure costs incurred by electricity generation companies and onshore receiving facility operator, and is stated at cost less accumulated amortisation and accumulated impairment losses. Deferred expenditure is amortised on a straight-line basis over the period in which the Group derives benefits from the capital contribution payments, which is generally the useful life of the relevant equipment ranging from 7 to 19 years.

Research costs are expensed as incurred. Capitalised development costs arising from development expenditures on an individual project are recognised as an intangible asset when the Group can demonstrate the technical feasibility of completing the intangible asset so that it will be available for use or sale, its intention to complete and its ability to use or sell the asset, how the asset will generate future economic benefits, the availability of resources to complete and the ability to measure reliably the expenditures during the development. Following initial recognition of the capitalised development costs as an intangible asset, it is carried at cost less accumulated amortisation and any accumulated impairment losses. Amortisation of the intangible asset begins when development is complete and the asset is available for use. Capitalised development costs have a finite useful life and are amortised over the period of 5 years on a straight line basis.

Intangible assets under construction are stated at cost. No amortisation is provided until the intangible assets are ready for use.

3.5 Investment property

Investment property is property held either to earn rental income or for capital appreciation or for both, but not for sale in the ordinary course of business, use in the production or supply of goods or services or for administrative purposes. Investment property is measured at cost on initial recognition.

Cost includes expenditure that is directly attributable to the acquisition of the investment property. The cost of self-constructed investment property includes the cost of materials and direct labour, any other costs directly attributable to bringing the investment property to a working condition for their intended use and capitalised borrowing costs.

Any gain or loss on disposal of an investment property (calculated as the difference between the net proceeds from disposal and the carrying amount of the item) is recognised in profit or loss.

When the use of a property changes such that it is reclassified as property, plant and equipment, its fair value at the date of reclassification becomes its cost for subsequent accounting.

Property that is being constructed for future use as investment property is accounted for at cost less accumulated depreciation and accumulated impairment losses. Investment property under development is not depreciated.

3.6 Financial instruments

Non-derivative financial assets

The Group initially recognises loans and receivables and deposits on the date they are originated. All other financial assets (including assets designated at fair value through profit or loss) are recognised initially on the trade date at which the Group becomes a party to the contractual provisions of the instrument.

The Group derecognises a financial asset when the contractual rights to the cash flows from the asset expire or it transfers the rights to receive the contractual cash flows on the financial asset in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred. Any interest in transferred financial assets that is created or retained by the Group is recognised as a separate asset or liability.

Financial assets and liabilities are offset and the net amount presented in the balance sheet when, and only when, the Group has a legal right to offset the amounts and intends either to settle on a net basis or to realise the asset and settle the liability simultaneously. The rights of offset must not be contingent on a future event and must be enforceable in the event of bankruptcy or insolvency of all the counterparties to the contract.

The Group classifies non-derivative financial assets into the following categories: financial assets at fair value through profit or loss, held-to-maturity financial assets, loans and receivables and available-for-sale financial assets.

Financial assets at fair value through profit or loss

A financial asset is classified at fair value through profit or loss if it is classified as held for trading or is designated as such upon initial recognition. Financial assets are designated at fair value through profit or loss if the Group manages such investments and makes purchase and sale decisions based on their fair value in accordance with the Group's documented risk management or investment strategy. Attributable transaction costs are recognised in profit or loss as incurred. Financial assets at fair value through profit or loss are measured at fair value, and changes therein are recognised in profit or loss.

Held-to-maturity financial assets

If the Group has the positive intent and ability to hold debt securities to maturity, then such financial assets are classified as held-to-maturity. Held-to-maturity financial assets are recognised initially at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, held-to-maturity financial assets are measured at amortised cost using the effective interest method, less any impairment losses. Any sale or reclassification of a more than insignificant amount of held-to-maturity investments not close to their maturity would result in the reclassification of all held-to-maturity investments as available-for-sale. It would also prevent the Group from classifying investment securities as held-to-maturity for the current and the following two financial years.

Loans and receivables

Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market. Such assets are recognised initially at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, loans and receivables are measured at amortised cost using the effective interest method, less any impairment losses.

Cash and cash equivalents

Cash and cash equivalents comprise cash balances, bank deposits and restricted cash.

Available-for-sale financial assets

Available-for-sale financial assets are non-derivative financial assets that are designated as available-for-sale and that are not classified in any of the above categories of financial assets. Available-for-sale financial assets are recognised initially at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, they are measured at fair value and changes therein, other than impairment losses (see Note 3.8) and foreign currency differences on available-for-sale monetary items (see Note 3.2), are recognised in other comprehensive income and presented in the fair value reserve in equity. When an investment is derecognised, the cumulative gain or loss in other comprehensive income is reclassified to profit or loss.

Non-derivative financial liabilities

The Group initially recognises debt securities issued and bank borrowings on the date that they are originated. All other financial liabilities (including liabilities designated at fair value through profit or loss) are recognised initially on the trade date, which is the date that the Group becomes a party to the contractual provisions of the instrument.

The Group derecognises a financial liability when its contractual obligations are discharged, cancelled or expired.

Financial assets and liabilities are offset and the net amount presented in the balance sheet when, and only when, the Group has a legal right to offset the amounts and intends either to settle on a net basis or to realise the asset and settle the liability simultaneously.

The Group classifies non-derivative financial liabilities into the other financial liabilities category. Such financial liabilities are recognised initially at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, these financial liabilities are measured at amortised cost using the effective interest method.

Bank overdrafts that are repayable on demand and form an integral part of the Group's cash management are included as a component of cash and cash equivalents for the purpose of the statement of cash flows.

Ordinary shares

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of ordinary shares are recognised as a deduction from equity, net of any tax effects.

Derivative financial instruments, including hedge accounting

The Group holds derivative financial instruments to hedge its foreign currency and interest rate risk exposures. Embedded derivatives are separated from the host contract and accounted for separately if the economic characteristics and risks of the host contract and the embedded derivative are not closely related. A separate instrument with the same terms as the embedded derivative would meet the definition of a derivative.

On initial designation of the derivative as the hedging instrument, the Group formally documents the relationship between the hedging instrument and hedged item, including the risk management objectives and strategy in undertaking the hedge transaction and the hedged risk, together with the methods that will be used to assess the effectiveness of the hedging relationship. The Group makes an assessment, both at the inception of the hedge relationship as well as on an ongoing basis, of whether the hedging instruments are expected to be "highly effective" in offsetting the changes in fair value or cash flows of the respective hedged items attributable to the hedged risk and whether the actual results of each hedge are within a range of 80%-125%. For a cash flow hedge of a forecast transaction, the transaction should be highly probable to occur and should present an exposure to variations in cash flows that could ultimately affect reported profit or loss.

Derivatives are recognised initially at fair value; attributable transaction costs are recognised in profit or loss as incurred. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are accounted for as described below.

Cash flow hedges

When a derivative is designated as the hedging instrument in a hedge of the variability in cash flows attributable to a particular risk associated with a recognised asset or liability or a highly probable forecast transaction that could affect profit or loss, the effective portion of changes in the fair value of the derivative is recognised in other comprehensive income and presented in the hedging reserve in equity. Any ineffective portion of changes in the fair value of the derivative is recognised immediately in profit or loss.

When the hedged item is a non-financial asset, the amount accumulated in equity is included in the carrying amount of the asset when the asset is recognised. In other cases, the amount accumulated in equity is reclassified to profit and loss in the same period that the hedged item affects profit or loss. If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated or exercised, or the designation is revoked, then hedge accounting is discontinued prospectively. If the forecast transaction is no longer expected to occur, then the balance in equity is reclassified to profit or loss.

Fair value hedges

Changes in the fair value of a derivative hedging instrument designated as a fair value hedge are recognised in profit or loss. The hedged item is adjusted to reflect changes in its fair value in respect of the risk being hedged; the gain or loss attributable to the hedged risk is recognised in profit or loss with an adjustment to the carrying amount of the hedged item.

Derivatives that do not qualify for hedge accounting

When a derivative financial instrument is not designated in a hedge relationship that qualifies for hedge accounting, all changes in its fair value are recognised immediately in profit or loss.

Intra-group financial guarantees in the separate financial statements

Financial guarantees are financial instruments which are issued by the Company that requires the issuer to make specified payments to reimburse the holder for the loss it incurs because a specified debtor fails to meet payment when due in accordance with the original or modified terms of a contractual agreement.

Financial guarantees are recognised initially at fair value and are classified as financial liabilities. Subsequent to initial measurement, the financial guarantees are stated at the higher of the initial fair value less cumulative amortisation and the amount that would be recognised if they were accounted for as contingent liabilities. When financial guarantees are terminated before their original expiry date, the carrying amount of the financial guarantees is transferred to profit or loss.

3.7 Leased assets

Leases in terms of which the Group assumes substantially all the risks and rewards of ownership are classified as finance leases. Upon initial recognition, the leased asset is measured at an amount equal to the lower of its fair value and the present value of the minimum lease payments. Subsequent to initial recognition, the asset is accounted for in accordance with the accounting policy applicable to that asset.

Other leases are operating leases and are not recognised in the Group's balance sheet.

Determining whether an arrangement contains a lease

At inception of an arrangement, the Group determines whether such an arrangement is or contains a lease. A specific asset is the subject of a lease if fulfilment of the arrangement is dependent on the use of that specified asset. An arrangement conveys the right to use the asset if the arrangement conveys to the Group the right to control the use of the underlying asset.

At inception or upon reassessment of the arrangement, the Group separates payments and other consideration required by such an arrangement into those for the lease and those for other elements on the basis of their relative fair values. If the Group concludes for a finance lease that it is impracticable to separate the payments reliably, then an asset and a liability are recognised at an amount equal to the fair value of the underlying asset. Subsequently, the liability is reduced as payments are made and an imputed finance charge on the liability is recognised using the Group's incremental borrowing rate.

3.8 Impairment

Non-derivative financial assets

A financial asset not carried at fair value through profit or loss, including an interest in an associate and joint venture, is assessed at each reporting date to determine whether there is any objective evidence that it is impaired. A financial asset is impaired if objective evidence indicates that a loss event had occurred after the initial recognition of the asset, and that the loss event had a negative effect on the estimated future cash flows of that asset that can be estimated reliably.

Loans and receivables and held-to-maturity investments

The Group considers evidence of impairment for loans and receivables and held-to-maturity investments at both a specific asset and collective level. All individually significant loans and receivables and held-to-maturity investments are assessed for specific impairment. All individually significant receivables and held-to-maturity investments found not to be specifically impaired are then collectively assessed for any impairment that has been incurred but not yet identified. Loans and receivables and held-to-maturity investments that are not individually significant are collectively assessed for impairment by grouping together loans and receivables and held-to-maturity investments with similar risk characteristics.

In assessing collective impairment, the Group uses historical trends of the probability of default, the timing of recoveries and the amount of loss incurred, adjusted for management's judgement as to whether current economic and credit conditions are such that the actual losses are likely to be greater or less than suggested by historical trends.

An impairment loss in respect of a financial asset measured at amortised cost is calculated as the difference between its carrying amount and the present value of the estimated future cash flows discounted at the asset's original effective interest rate.

Losses are recognised in profit or loss and reflected in an allowance account against loans and receivables or held-to-maturity investments. Interest on the impaired asset continues to be recognised. When a subsequent event (e.g. repayment by a debtor) causes the amount of impairment loss to decrease, the decrease in impairment loss is reversed through profit or loss.

Available-for-sale financial assets

Impairment losses on available-for-sale financial assets are recognised by reclassifying the losses accumulated in the fair value reserve in equity to profit or loss. The cumulative loss that is reclassified from equity to profit or loss is the difference between the acquisition cost, net of any principal repayment and amortisation, and current fair value, less any impairment loss recognised previously in profit or loss. Changes in impairment provisions attributable to application of effective interest method are reflected as a component of interest income. If, in a subsequent period, the fair value of an impaired available-for-sale debt security increases and the increase can be related objectively to an event occurring after the impairment loss was recognised in profit or loss, then the impairment loss is reversed. The amount of the reversal is recognised in profit or loss. However, any subsequent recovery in the fair value of an impaired available-for-sale equity security is recognised in other comprehensive income.

Non-financial assets

The carrying amounts of the Group's non-financial assets, other than inventories and deferred tax assets, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the asset's recoverable amounts are estimated. For goodwill and intangible assets that have indefinite useful lives or that are not yet available for use, recoverable amount is estimated each year at the same time. An impairment loss is recognised if the carrying amount of an asset or its related cash-generating unit ("CGU") exceeds its estimated recoverable amount.

The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU. For the purpose of impairment testing, assets that cannot be tested individually are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or CGU. Subject to an operating segment ceiling test, for the purposes of goodwill impairment testing, CGUs to which goodwill has been allocated are aggregated so that the level at which impairment testing is performed reflects the lowest level at which goodwill is monitored for internal reporting purposes. Goodwill acquired in a business combination is allocated to groups of CGUs that are expected to benefit from the synergies of the combination.

The Group's corporate assets do not generate separate cash inflows and are utilised by more than one CGU. Corporate assets are allocated to CGUs on a reasonable and consistent basis and tested for impairment as part of the testing of the CGU to which the corporate asset is allocated.

Impairment losses are recognised in profit or loss. Impairment losses recognised in respect of CGUs are allocated first to reduce the carrying amount of any goodwill allocated to the CGU (group of CGUs), and then to reduce the carrying amounts of the other assets in the CGU (group of CGUs) on a *pro rata* basis.

An impairment loss in respect of goodwill is not reversed. In respect of other assets, impairment losses recognised in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised. Such reversal of impairment is recognised in profit or loss.

Goodwill that forms part of the carrying amount of an investment in an associate or a joint venture is not recognised separately, and therefore is not tested for impairment separately. Instead, the entire amount of the investment in an associate or a joint venture is tested for impairment as a single asset when there is objective evidence that the investment in an associate or a joint venture may be impaired.

3.9 Inventories

Spare parts, accessories and other consumables are measured at the lower of cost and net realisable value. Cost is determined based on the weighted average method, and includes expenditure in acquiring the inventories and other costs incurred in bringing them to their existing location and condition. Cost may also include transfers from other comprehensive income of any gain or loss on qualifying cash flow hedges of foreign currency purchases of inventories. Allowance for obsolete, deteriorated or damaged stocks is made when considered appropriate.

3.10 Accrued revenue

Revenue accrual estimates are made to account for the unbilled amount at the reporting date.

3.11 Employee benefits

Provision is made for the accrued liability for employee entitlements arising from services rendered by employees up to the reporting date. The provision represents the Group's total estimated liability at the reporting date for employee entitlements.

Long service leave

The liability for long service leave is recognised in the provision for employee benefits and is measured as the present value of expected future payments to be made in respect of services provided by employees up to the reporting date, including on-costs. Consideration is given to expected future salary levels, experience of employee departures and periods of service. Expected future payments are discounted using interest rates on government guaranteed bonds with terms to maturity and currencies that match, as closely as possible, the estimated future cash outflows.

Defined contribution plans

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions into a separate entity and will have no legal or constructive obligation to pay further amounts. Obligations for contributions to defined contribution plans are recognised as an employee benefit expense in profit or loss in the periods during which services are rendered by employees.

Short-term employee benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided. A liability is recognised for the amount expected to be paid under short-term cash bonus or profit-sharing plans if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee, and the obligation can be estimated reliably.

3.12 Provisions

A provision is recognised if, as a result of past event, the Group has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognised as finance cost.

Environmental

Environmental provision is made for the rehabilitation of sites based on the estimated costs of the rehabilitation. The liability includes the costs of reclamation, plant closure and dismantling, and waste site closure. The liability is determined based on the present value of the obligation. Annual adjustments to the liability are recognised in profit or loss over the estimated life of the sites. The costs are estimated based on assumptions of current legal requirements and technologies. Any changes in estimates are dealt with on a prospective basis.

Onerous contracts

A provision for onerous contracts is recognised when the expected benefits to be derived by the Group from a contract are lower than the unavoidable cost of meeting its obligations under the contract. The provision is measured at the present value of the lower of the expected cost of terminating the contract and the expected net cost of continuing with the contract. Before a provision is established, the Group recognises any impairment loss on the assets associated with that contract.

3.13 Government grant

Capital grant is recognised on a straight-line basis and taken to profit or loss over the periods necessary to match the depreciation of the assets purchased with the government grants. Operating grant is taken to profit or loss on a systematic basis in the same periods in which the expenses are incurred.

3.14 Deferred construction cost compensation

Deferred construction cost compensation received to defray costs relating to the construction of an asset are accounted for as a government grant. Note 3.13 sets out the government grant accounting policy.

3.15 Deferred income

Deferred income comprises (i) government grants for the purchase of depreciable assets, (ii) contributions made by certain customers towards the cost of capital projects received prior to 1 July 2009, (iii) use of system charges, transportation of gas, sale of electricity and Market Support Services Licence fees and (iv) compensation received to defray operating expenses.

Government grants and customer contributions

Deferred income is recognised on a straight-line basis and taken to profit or loss over the periods necessary to match the depreciation of the assets purchased with the government grants and customers' contributions.

Use of system charges, transportation of gas, sale of electricity and Market Support Services Licence fees

Deferred income arises when billings vary from revenue recognised. Deferred income is recognised in profit or loss over the periods necessary to adjust allowed revenue (in accordance with the price regulation framework or regulatory formulae), to revenue earned based on services rendered. At the end of each regulatory period, after adjusting for amounts to be refunded, any outstanding balance is taken to profit or loss as revenue.

3.16 Price regulation and licence

The Group's operations in Singapore are regulated under the Electricity Licence, Gas Licence and the Market Support Services Licence issued by the Energy Market Authority ("EMA") of Singapore.

Revenue to be earned from the supply and transmission of electricity, transportation of gas and the provision of market support services is regulated based on certain formulae and parameters set out in those licence, relevant acts and codes.

Actual revenue billed may vary from that allowed due to volume variances. This may result in adjustments that may increase or decrease tariffs in succeeding periods. Amounts to be recovered or refunded are brought to account as adjustments to revenue in the period in which the Group becomes entitled to the recovery or liable for the refund.

The Group's capital expenditure may vary from its regulatory plan and is subject to a review by the EMA. The results of the variances in capital expenditure may be translated into price adjustments, if any, in the following reset period.

3.17 Disposal group held-for-sale

Non-current assets and disposal groups classified as held-for-sale are measured at the lower of their carrying amount and fair value less costs to sell. Non-current assets and disposal groups are classified as held-for-sale if their carrying amounts will be recovered principally through a sale transaction rather than through continuing use.

Property, plant and equipment and intangible assets once classified as held for sale are not depreciated or amortised.

3.18 Revenue recognition

Provided it is probable that the economic benefits will flow to the Group and the Company and the revenue and costs, if applicable, can be measured reliably, revenue is recognised in profit or loss as follows:

Sale of electricity

Revenue from the sale of electricity is recognised when electricity is delivered to consumers.

Use of system charges and transportation of gas

The use of system charges and revenue from the transportation of gas are approved by the EMA for a 5-year regulatory period in accordance with the price regulation framework.

Revenue is recognised when services are rendered and the volume of electricity and gas is delivered to consumers.

District cooling service income

Income from services is recognised when the services are rendered. The revenue corresponds to the quantum which the Group is entitled to under Condition 13 (Economic Regulation) of its District Cooling Services Licence issued by the Energy Market Authority of Singapore. The variance between tariff billing and the revenue entitled is reported as changes to the economic regulation equalisation account, an asset recorded in trade and other receivables for an under-recovery, and a liability recorded in trade and other payables for an over-recovery.

Transfers of assets from customers

Revenue arising from assets transferred from customers is recognised in profit or loss when the performance obligations associated with receiving those customer contributions are met. In determining the amount of revenue to be recognised, the fair value of the assets is required to be estimated and the circumstances and nature of the transferred assets, which includes market value and relevant rate-regulated framework governing those assets, are taken into account.

Agency fees and Market Support Services Licence fees

Agency fees from acting as billing agent and fees for services provided under the Market Support Services Licence are recognised when the services are rendered.

Dividend income

Dividend income is recognised on the date that the Group's right to receive payment is established.

Rental income

Rental income is recognised in profit or loss on a straight-line basis over the term of the lease.

Support service income and management fees

Support service income and management fees are recognised when the services are rendered.

Capital and maintenance works income

Revenue from rendering of capital and maintenance service is recognised in proportion to the stage of completion of the contract when the stage of contract completion can be reliably measured. The stage of completion is assessed by reference to surveys of work performed.

Where the outcome of capital and maintenance contract cannot be reliably estimated, contract costs are expensed as incurred. Revenue is only recognised to the extent of costs incurred where it is probable that the costs will be recovered. An expected loss is recognised immediately as an expense.

3.19 Leases

As lessor

Leases in which the Group does not transfer substantially all the risks and rewards of ownership of the asset are classified as operating leases. Initial direct costs incurred in negotiating an operating lease are added to the carrying amount of the leased asset and recognised over the lease term. Rental income under operating leases are recognised in profit or loss over the term of the lease.

Where assets are leased under a finance lease, the present value of the lease payments is recognised as a receivable. The difference between the gross receivable and the present value of the receivable is recognised as unearned finance income. Lease income is recognised over the lease term using the net investment method, which reflects a constant periodic rate of return. Contingent rental income is recognised in profit or loss in the accounting period in which they are incurred.

As lessee

Where the Group has the use of assets under operating leases, payments made under the leases are recognised in profit or loss on a straight-line basis over the term of the lease. Lease incentives received are recognised in profit or loss as an integral part of the total lease payments made.

3.20 Finance income and costs

Finance income comprises interest income on funds invested. Interest income is recognised as it accrues, using the effective interest method.

Finance costs comprise interest expense on borrowings, unwinding of the discount on provisions, fair value gains or losses on financial assets and liabilities at fair value through profit or loss, impairment losses recognised on financial assets (other than trade receivables), gains or losses on hedging instruments that are recognised in profit or loss and amortisation of transaction costs capitalised.

Borrowing costs that are not directly attributable to the acquisition, construction or production of a qualifying asset are recognised in profit or loss using the effective interest method.

3.21 Tax expense

Tax expense comprises current and deferred tax. Current and deferred taxes are recognised in profit or loss except to the extent that it relates to a business combination, or items recognised directly in equity or in other comprehensive income.

Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years. Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognised for:

- temporary difference on the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss;
- temporary differences related to investments in subsidiaries, associates and joint ventures to the extent that the Group is able to control the timing of the reversal of the temporary differences and it is probable that they will not reverse in the foreseeable future; and
- taxable temporary differences arising on the initial recognition of goodwill.

Deferred tax is measured at the tax rates that are expected to be applied to the temporary differences when they reverse, based on the laws that have been enacted or substantively enacted by the reporting date.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realised simultaneously.

A deferred tax asset is recognised for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future taxable profits will be available against which they can be utilised. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

In determining the amount of current and deferred tax, the Group takes into account the impact of uncertain tax positions and whether additional taxes and interest may be due. The Group believes that its accruals for tax liabilities are adequate for all open tax years based on its assessment of many factors, including interpretations of tax law and prior experience. This assessment relies on estimates and assumptions and may involve a series of judgements about future events. New information may become available that causes the Group to change its judgement regarding the adequacy of existing tax liabilities; such changes to tax liabilities will impact tax expense in the period that such a determination is made.

3.22 Segment reporting

An operating segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses, including revenues and expenses that relate to transactions with any of the Group's other components. All operating segments' operating results are reviewed regularly by the chief operating decision maker ("CODM") to make decisions about resources to be allocated to the segment and to assess its performance, and for which discrete financial information is available.

Segment results that are reported to the CODM include items directly attributable to a segment as well as those that can be allocated on a reasonable basis.

Segment capital expenditure is the total cost incurred during the year to acquire property, plant and equipment, and intangible assets other than goodwill.

3.23 New standards and interpretations not yet adopted

A number of new standards, amendments to standards and interpretations that are effective for annual periods beginning after 1 April 2017 have not been applied in preparing these financial statements.

These new standards include, among others, FRS 115 *Revenue from Contracts with Customers* and FRS 109 *Financial Instruments* which are mandatory for adoption by the Group on 1 April 2018 and FRS 116 *Leases* which is mandatory for adoption by the Group on 1 April 2019.

- FRS 115 establishes a comprehensive framework for determining whether, how much and when revenue is recognised. It also introduces new cost guidance which requires certain costs of obtaining and fulfilling contracts to be recognised as separate assets when specified criteria are met. When effective, FRS 115 replaces existing revenue recognition guidance, including FRS 18 *Revenue*, FRS 11 *Construction Contracts* and INT FRS 118 *Transfers of Assets from Customers*. Upon the adoption of FRS 115, the Group will recognise revenue[1] on a gross basis with reference to the tariff billed to their customers. The difference between the tariff billed and the allowed revenue computed in accordance with the price regulation framework will be accounted for as a regulatory deferred asset or liability with a corresponding entry made as a separate line item in the income statement. The Group does not expect any significant impact on its financial performance or position.

- FRS 109 replaces most of the existing guidance in FRS 39 *Financial Instruments: Recognition and Measurement*. It introduces new requirements for classification and measurement of financial assets, impairment of financial assets and hedge accounting. Financial assets are classified according to their contractual cash flow characteristics and the business model under which they are held. The Group will elect to measure its currently available-for-sale unquoted equity securities at fair value through other comprehensive income. The impairment requirements in FRS 109 are based on an expected credit loss model and replace the FRS 39 incurred loss model, and is expected that the net impact to be insignificant.

- FRS 116 requires lessees to recognise most leases on balance sheets to reflect the rights to use the leased assets and the associated obligations for lease payments as well as the corresponding interest expense and depreciation charges. The standard includes two recognition exemption for lessees – leases of 'low value' assets and short-term leases.

  The Group is currently in the process of analysing the transitional approaches and practical expedients to be elected on transition to FRS 116 and assessing the potential impact of adoption.

[1] Includes Sale of electricity, Use of system charges and transportation of gas, Market Support Services Licence fees and District cooling service income.

4 Property, plant and equipment

Group	Freehold land $ million	Leasehold land $ million	Leasehold buildings $ million	Plant and machinery $ million	Other plant and equipment $ million	Motor vehicles and office equipment $ million	Construction-in-progress $ million	Total $ million
Cost								
At 1 April 2016	0.3	551.3	1,554.7	12,893.2	964.0	229.0	2,579.3	18,771.8
Additions	–	0.6	–	–	33.6	4.6	1,296.6	1,335.4
Disposals	–	–	(0.1)	(91.3)	(16.7)	(7.6)	(4.6)	(120.3)
Transfers from/(to) intangible assets	–	–	–	–	–	13.1	(0.3)	12.8
Reclassifications	–	9.6	166.6	475.0	81.5	23.2	(755.9)	–
Reclass to assets held-for-sale	–	–	–	–	(134.0)	(4.8)	(5.3)	(144.1)
At 31 March 2017	0.3	561.5	1,721.2	13,276.9	928.4	257.5	3,109.8	19,855.6
Additions	–	–	–	0.1	30.3	7.1	1,326.2	1,363.7
Disposals	–	–	(6.2)	(68.9)	(21.1)	(16.0)	(0.7)	(112.9)
Impairment	–	–	–	–	–	–	(1.6)	(1.6)
Transfers from/(to) intangible assets	–	–	–	–	(0.1)	0.6	(0.1)	0.4
Reclassifications	–	63.2	732.3	770.0	259.3	41.5	(1,866.3)	–
Translation difference	–	–	–	–	–	–	0.2	0.2
At 31 March 2018	0.3	624.7	2,447.3	13,978.1	1,196.8	290.7	2,567.5	21,105.4

Group	Freehold land $ million	Leasehold land $ million	Leasehold buildings $ million	Plant and machinery $ million	Other plant and equipment $ million	Motor vehicles and office equipment $ million	Construction-in-progress $ million	Total $ million
Accumulated depreciation and impairment losses								
At 1 April 2016	–	180.0	745.1	6,164.6	583.7	130.6	–	7,804.0
Depreciation	–	21.4	45.5	402.9	61.0	17.7	–	548.5
Disposals	–	–	–	(81.2)	(16.0)	(6.4)	–	(103.6)
Transfer from intangible assets	–	–	–	–	–	5.8	–	5.8
Reclass to assets held-for-sale	–	–	–	–	(108.5)	(4.2)	–	(112.7)
At 31 March 2017	–	201.4	790.6	6,486.3	520.2	143.5	–	8,142.0
Depreciation	–	15.1	51.8	422.5	68.4	21.4	–	579.2
Disposals	–	–	(6.2)	(61.8)	(18.4)	(15.0)	–	(101.4)
At 31 March 2018	–	216.5	836.2	6,847.0	570.2	149.9	–	8,619.8
Carrying amounts								
At 1 April 2016	0.3	371.3	809.6	6,728.6	380.3	98.4	2,579.3	10,967.8
At 31 March 2017	0.3	360.1	930.6	6,790.6	408.2	114.0	3,109.8	11,713.6
At 31 March 2018	0.3	408.2	1,611.1	7,131.1	626.6	140.8	2,567.5	12,485.6

Company	Leasehold land $ million	Leasehold buildings $ million	Plant and equipment $ million	Motor vehicles and office equipment $ million	Construction -in-progress $ million	Total $ million
Cost						
At 1 April 2016	9.4	16.8	3.2	18.8	0.7	48.9
Additions	–	–	–	–	2.2	2.2
Disposals	–	–	–	(0.4)	–	(0.4)
Reclassifications	–	–	–	0.7	(0.7)	–
At 31 March 2017	9.4	16.8	3.2	19.1	2.2	50.7
Additions	–	–	–	–	2.3	2.3
Disposals	–	(6.1)	(2.9)	(7.5)	–	(16.5)
Reclassifications	–	0.6	0.1	2.9	(3.6)	–
At 31 March 2018	9.4	11.3	0.4	14.5	0.9	36.5
Accumulated depreciation						
At 1 April 2016	5.8	12.1	2.7	12.4	–	33.0
Depreciation	0.3	1.6	0.4	2.5	–	4.8
Disposals	–	–	–	(0.4)	–	(0.4)
At 31 March 2017	6.1	13.7	3.1	14.5	–	37.4
Depreciation	0.3	0.6	0.1	2.0	–	3.0
Disposals	–	(6.1)	(2.9)	(7.5)	–	(16.5)
At 31 March 2018	6.4	8.2	0.3	9.0	–	23.9
Carrying amounts						
At 1 April 2016	3.6	4.7	0.5	6.4	0.7	15.9
At 31 March 2017	3.3	3.1	0.1	4.6	2.2	13.3
At 31 March 2018	3.0	3.1	0.1	5.5	0.9	12.6

Expenses capitalised

The following expenses were capitalised in property, plant and equipment during the year:

	Group		Company	
	2018	2017	2018	2017
Staff cost	77.6	77.7	–	–
Other expenses	12.8	1.2	–	–

5 Intangible assets

	Group					Company			
	Software $ million	Deferred expenditure $ million	Capitalised development costs $ million	Assets under construction $ million	Total $ million	Software $ million	Capitalised development costs $ million	Assets under construction $ million	Total $ million
Cost									
At 1 April 2016	257.4	110.6	–	18.1	386.1	17.1	–	3.4	20.5
Additions	2.9	3.7	–	43.3	49.9	–	–	2.3	2.3
Disposals	(1.6)	–	–	–	(1.6)	(0.1)	–	–	(0.1)
Transfer (to)/from property, plant and equipment	(13.1)	–	–	0.3	(12.8)	–	–	–	–
Reclassifications	13.6	0.4	–	(14.0)	–	3.8	–	(3.8)	–
At 31 March 2017	259.2	114.7	–	47.7	421.6	20.8	–	1.9	22.7
Additions	1.0	–	–	63.7	64.7	–	–	7.4	7.4
Disposals	(1.2)	–	–	–	(1.2)	(1.0)	–	–	(1.0)
Transfer (to)/from property, plant and equipment	(0.4)	–	–	–	(0.4)	–	–	–	–
Reclassifications	96.6	–	2.6	(99.2)	–	3.6	2.6	(6.2)	–
At 31 March 2018	355.2	114.7	2.6	12.2	484.7	23.4	2.6	3.1	29.1

	Group					Company			
	Software $ million	Deferred expenditure $ million	Capitalised development costs $ million	Assets under construction $ million	Total $ million	Software $ million	Capitalised development costs $ million	Assets under construction $ million	Total $ million
Accumulated amortisation and impairment losses									
At 1 April 2016	164.6	88.4	–	–	253.0	12.0	–	–	12.0
Amortisation	29.7	4.7	–	–	34.4	2.7	–	–	2.7
Disposals	(1.6)	–	–	–	(1.6)	(0.1)	–	–	(0.1)
Transfer to property, plant and equipment	(5.8)	–	–	–	(5.8)	–	–	–	–
At 31 March 2017	186.9	93.1	–	–	280.0	14.6	–	–	14.6
Amortisation	27.0	4.8	0.3	–	32.1	2.4	0.3	–	2.7
Disposals	(1.2)	–	–	–	(1.2)	(1.0)	–	–	(1.0)
At 31 March 2018	212.7	97.9	0.3	–	310.9	16.0	0.3	–	16.3
Carrying amounts									
At 1 April 2016	92.8	22.2	–	18.1	133.1	5.1	–	3.4	8.5
At 31 March 2017	72.3	21.6	–	47.7	141.6	6.2	–	1.9	8.1
At 31 March 2018	142.5	16.8	2.3	12.2	173.8	7.4	2.3	3.1	12.8

Expenses capitalised

The following expenses were capitalised in intangible assets during the year:

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Staff cost	13.7	7.7	4.0	–
Other expenses	2.9	2.5	–	–

6 Investment property

	Group	
	2018 $ million	2017 $ million
Investment property under development		
At 1 April	–	–
Additions	712.9	–
At 31 March	712.9	–

The investment property under development relates to development of a commercial building for leasing purposes.

At 31 March 2018, the fair value of the investment property under development approximates the carrying value.

7 Subsidiaries

	Company	
	2018 $ million	2017 $ million
Unquoted equity shares, at cost	6,782.0	6,781.9
Unquoted unit, at cost	–*	–*
Impairment losses	(17.0)	(17.0)
	6,765.0	6,764.9

* Amount is less than $0.1 million

Details of significant subsidiaries are as follows:

Name of subsidiaries	Principal activities	Place of incorporation	Effective interest held by the Group	
			2018 %	2017 %
SP PowerAssets Limited	Transmission and distribution of electricity	Singapore	100	100
PowerGas Limited	Transportation of piped gas	Singapore	100	100
SP PowerGrid Limited	Provision of management services to related corporations	Singapore	100	100
SP Services Limited	Sale of electricity and provision of customer services relating to utilities supply	Singapore	100	100

Name of subsidiaries	Principal activities	Place of incorporation	Effective interest held by the Group 2018 %	2017 %
SP Cross Island Tunnel Trust	Construction, development, ownership, operation and maintenance of the cross island electricity tunnels in Singapore	Singapore	100	100
Singapore Power International Pte Ltd	Investment holding	Singapore	100	100
Singapore District Cooling Pte Ltd	Ownership, operation, maintenance and management of district cooling systems	Singapore	100	100

On 2 May 2017, the Group divested its 51 per cent equity stake in SP Telecommunications Pte Ltd ("SP Tel"). The remaining 49 per cent equity stake in SP Tel is accounted as an investment in joint venture (Note 8).

8 Associates and joint ventures

	Group 2018 $ million	Group 2017 $ million	Company 2018 $ million	Company 2017 $ million
Investment in associates				
- quoted equity shares	1,341.0	1,466.5	–	–
- unquoted equity shares	1,449.2	1,520.2	–	–
Investment in joint ventures	53.6	8.0	45.4	1.3
	2,843.8	2,994.7	45.4	1.3
Fair value of interest in investment of associates for which there is a published price quotation – AusNet Services*	1,896.2	2,012.4	–	–

* AusNet Services is listed on the Australian Stock Exchange and Singapore Stock Exchange. Based on its closing price of A$1.675 (2017: A$1.69) on the Australian Stock Exchange, the fair value of the Group's investment is S$1.9 billion (2017: S$2.0 billion).

On 2 May 2018, Ausnet Services announced its intention to voluntarily delist from the Singapore Stock Exchange. The delisting is expected to be completed by July 2018 and not expected to affect the current year financial statements as reported.

Name of associates	Principal activities	Place of incorporation	Effective interest held by the Group 2018 %	2017 %
AusNet Services Ltd and its subsidiaries (collectively referred to as AusNet Services)	Electricity transmission and distribution and gas distribution.	Australia	31.1	31.1
SGSP (Australia) Assets Pty Ltd and its subsidiaries (collectively referred to as SGSPAA)	Infrastructure services, and distribution of electricity and gas	Australia	40.0	40.0

The summarised financial information in respect of AusNet Services and SGSPAA, based on its FRS financial statements and reconciliation with the carrying amount of the investment in the consolidated financial statements not adjusted for the percentage of ownership held by the Group are as follows:

	Associates			
	AusNet Services		*SGSPAA*	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Assets and liabilities				
Current assets	927.7	698.5	448.1	386.9
Non-current assets	11,678.4	11,831.6	10,629.8	10,282.4
Total assets	12,606.1	12,530.1	11,077.9	10,669.3
Current liabilities	927.1	837.9	980.3	396.7
Non-current liabilities	8,097.8	7,750.5	6,474.7	6,472.0
Total liabilities	9,024.9	8,588.4	7,455.0	6,868.7
Net assets	3,581.2	3,941.7	3,622.9	3,800.6
Net assets, excluding goodwill	3,581.2	3,941.7	3,622.9	3,800.6
Proportion of the Group's ownership	31.1%	31.1%	40.0%	40.0%
Group's share of net assets	1,113.7	1,225.9	1,449.2	1,520.2
Goodwill on acquisition	227.3	240.6	–	–
Carrying amount of the investment	1,341.0	1,466.5	1,449.2	1,520.2

The summarised statements of comprehensive income in respect of AusNet Services and SGSPAA, based on its FRS financial statements, not adjusted for the percentage ownership held by the Group, are as follows:

	Associates			
	AusNet Services		*SGSPAA*	
	2018 $ million	**2017 $ million**	**2018 $ million**	**2017 $ million**
Results				
Revenue	2,001.6	1,962.6	1,853.0	1,869.9
Profit after taxation	268.8	305.2	234.7	303.7
Other comprehensive income	(52.3)	60.6	(30.1)	62.0
Total comprehensive income	216.5	365.8	204.6	365.7

The Group recorded dividend income of $185.3 million (2016: $160.8 million) from AusNet Services and SGSPAA, of which $161.4 million (2017: $126.2 million) was settled by cash and the balance was settled by subscribing to shares issued by AusNet Services and incurrence of withholding taxes.

During the previous financial year, the Group entered into an agreement with Singapore Technologies Electronics Limited to divest a 51 per cent equity stake in SP Telecommunications Pte Ltd ("SP Tel") and received regulatory approval in March 2017. The divestment was completed on 2 May 2017 and the remaining 49 per cent equity stake in SP Tel is accounted as investment in joint venture.

The value of the assets and liabilities of SP Tel recorded in the consolidated financial statements as at 2 May 2017, and the effects of the disposal were:

	2 May 2017 $ million
Total assets	121.2
Total liabilities	(18.9)
Carrying value of net assets	102.3
Cash consideration	55.0
Cash and cash equivalents of the subsidiary	(82.8)
Net cash outflow on disposal of a subsidiary	(27.8)
Cash received	55.0
Net assets derecognised	(102.3)
Fair value of retained interest accounted as investment in joint venture	52.8
Gain on disposal	5.5

The summarised financial information in respect of Power Automation Pte Ltd ("PA") and SP Telecommunications Pte Ltd ("SP Tel"), based on its FRS financial statements and reconciliation with the carrying amount of the investment in the consolidated financial statements, not adjusted for the percentage ownership held by the Group are as follows:

	Joint ventures		
	PA		*SP Tel*
	2018 $ million	**2017 $ million**	**2018 $ million**
Assets and liabilities			
Current assets	22.7	25.7	77.3
Non-current assets	0.8	1.1	27.3
Total assets	23.5	26.8	104.6
Current liabilities	9.0	11.2	12.3
Non-current liabilities	–	–	3.8
Total liabilities	9.0	11.2	16.1
Net assets	14.5	15.6	88.5
Net assets, excluding goodwill	14.5	15.6	88.5
Proportion of the Group's ownership	51%	51%	49%
Group's share of net assets	7.4	8.0	43.4
Goodwill	–	–	2.8
Carrying amount of the investment	7.4	8.0	46.2

The summarised statement of comprehensive income in respect of PA and SP Tel not adjusted for the percentage ownership held by the Group, are as follows:

	Joint ventures		
	PA		*SP Tel*
	2018 $ million	**2017 $ million**	**2018 $ million**
Results			
Revenue	32.3	35.3	16.2
Profit/(Loss) after taxation	2.9	3.3	(13.7)
Other comprehensive income	–	–	–
Total comprehensive income	2.9	3.3	(13.7)

9 Other non-current assets

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Amount due from associate:				
- convertible instrument	322.3	341.1	–	–
Accrued recoverable	166.2	76.9	–	–
Finance lease receivables	7.7	10.1	–	–
Other receivables	2.0	–	–	–
Amounts due from subsidiaries:				
- non-trade	–	–	168.6	80.7
- impairment loss	–	–	(2.1)	(2.1)
	498.2	428.1	166.5	78.6

The non-current amount due from associate of $322.3 million (2017: $341.1 million) represents the face value of the convertible instrument. The convertible instrument is interest bearing at the fixed rate of 10.25% per annum and is convertible into ordinary shares at the discretion of the Group until mandatory conversion in 2050. The convertible instrument is convertible into a variable number of shares, which precludes the convertible instrument from being recognised as equity, and is recognised as a non-current receivable. The Group has a 40% holding in both the convertible instrument and ordinary shares issued by SGSPAA.

Accrued recoverable is the amount of revenue which the Group is entitled to recover under a regulatory scheme.

Balances with subsidiaries are unsecured, repayable on demand and denominated in Singapore dollars. Non-trade amounts due from subsidiaries of $1.6 million (2017: nil) bear interest at 1.55% (2017: nil) per annum. All other amounts are non interest-bearing.

Finance lease receivables

The Group entered into arrangements to transport a minimum volume of piped gas to its customers using certain pipelines. Although the arrangements are not in the legal form of a lease, the Group concluded that the arrangements contain in substance leases of the submarine pipelines, because the minimum lease payments amount to substantially all the fair value of the leased assets. The lessees assume substantially all the risks and rewards of ownership. Accordingly, these leases were classified as finance lease. The Group however continues to be the legal owner of the pipelines and therefore claims capital allowances for the pipelines.

The interest rate implied in each lease is determined at the commencement date of the lease.

The carrying amount of the finance lease receivables at the reporting date approximates its fair value, based on discounting the cash flows at the market rate.

	Group	
	2018	**2017**
	$ million	**$ million**
Minimum lease payment receivables from leased pipelines	12.9	16.8
Unearned income in leased pipelines	(3.0)	(3.9)
Net receivables	9.9	12.9
Current (Note 14b)	2.2	2.8
Non-current	7.7	10.1
	9.9	12.9

	Minimum lease payment receivables $ million	**Unearned income $ million**	**Present value of lease payment receivables $ million**
2018			
Within 1 year	3.0	(0.8)	2.2
After 1 year but within 5 years	9.9	(2.2)	7.7
	12.9	(3.0)	9.9
2017			
Within 1 year	3.8	(1.0)	2.8
After 1 year but within 5 years	5.9	(2.4)	3.5
After 5 years	7.1	(0.5)	6.6
	16.8	(3.9)	12.9

The effective interest rates on the finance lease receivables ranges from 7.38% to 7.76% (2017: 7.38% to 7.76%).

10 Deferred taxation

Group	At 1 April 2016 $ million	Recognised in profit or loss $ million	Recognised in other comprehensive income $ million	Reclass to liabilities held for sale $ million	At 31 March 2017 $ million	Recognised in profit or loss $ million	Recognised in other comprehensive income $ million	At 31 March 2018 $ million
Deferred tax assets								
Other financial liabilities	2.8	–	5.0	–	7.8	–	(1.6)	6.2
Trade and other payables and provisions	6.1	(2.9)	–	–	3.2	(0.9)	–	2.3
Deferred income	98.7	22.8	–	–	121.5	(7.9)	–	113.6
Others	5.8	(3.9)	(0.3)	–	1.6	(1.0)	(0.1)	0.5
	113.4	16.0	4.7	–	134.1	(9.8)	(1.7)	122.6
Set off of tax	(81.5)				(104.9)			(101.4)
Net deferred tax assets	31.9				29.2			21.2
Deferred tax liabilities								
Property, plant and equipment	(1,296.5)	(42.4)	–	4.6	(1,334.3)	(51.0)	–	(1,385.3)
Intangible assets	(12.8)	(10.4)	–	–	(23.2)	(4.9)	–	(28.1)
Trade and other receivables	(2.7)	0.4	–	–	(2.3)	0.4	–	(1.9)
Other financial assets	(0.3)	–	–	–	(0.3)	–	0.1	(0.2)
Undistributed earnings of associates	(7.5)	(19.0)	–	–	(26.5)	9.5	–	(17.0)
Others	(1.2)	(0.9)	(0.4)	–	(2.5)	(1.7)	0.6	(3.6)
	(1,321.0)	(72.3)	(0.4)	4.6	(1,389.1)	(47.7)	0.7	(1,436.1)
Set off of tax	81.5				104.9			101.4
Net deferred tax liabilities	(1,239.5)				(1,284.2)			(1,334.7)

Company	At 1 April 2016 $ million	Recognised in profit or loss $ million	Recognised in other comprehensive income $ million	At 31 March 2017 $ million	Recognised in profit or loss $ million	Recognised in other comprehensive income $ million	At 31 March 2018 $ million
Deferred tax assets							
Other financial liabilities	1.0	–	0.3	1.3	–	(0.8)	0.5
Trade and other payables and provisions	0.2	0.1	–	0.3	0.1	–	0.4
Others	0.5	–	–	0.5	(0.5)	–	–
	1.7	0.1	0.3	2.1	(0.4)	(0.8)	0.9
Set off of tax	(1.7)			(2.1)			(0.9)
Net deferred tax assets	–			–			–
Deferred tax liabilities							
Property, plant and equipment	(0.8)	0.3	–	(0.5)	(0.2)	–	(0.7)
Intangible assets	(0.8)	0.2	–	(0.6)	(0.3)	–	(0.9)
Other financial assets	(0.7)	–	(0.5)	(1.2)	–	0.7	(0.5)
	(2.3)	0.5	(0.5)	(2.3)	(0.5)	0.7	(2.1)
Set off of tax	1.7			2.1			0.9
Net deferred tax liabilities	(0.6)			(0.2)			(1.2)

11 Derivative assets and liabilities

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Current				
Derivative assets	17.0	2.4	9.7	0.2
Derivative liabilities	2.8	15.3	0.1	6.7
Non-current				
Derivative assets	48.8	106.4	2.5	0.2
Derivative liabilities	230.7	92.9	2.0	8.1

Offsetting financial assets and financial liabilities

The Group's derivative transactions are entered into under International Swaps and Derivatives Association ("ISDA") Master Agreements. The ISDA agreements create a right of set-off of recognised amounts that is enforceable only following an event of default, insolvency or bankruptcy of the Group or the counterparties. As such, these agreements do not meet the criteria for offsetting under FRS 32 *Financial Instruments: Presentation.*

The Group and its counterparties do not intend to settle on a net basis or to realise the assets and settle the liabilities simultaneously but have the right to set off in the case of default and insolvency or bankruptcy.

The Group's financial assets and liabilities subject to an enforceable master netting arrangement that are not otherwise set-off are as follows:

Types of financial assets	Gross amounts of recognised financial assets $ million	Related amounts not offset in the balance sheet – financial instruments $ million	Net amounts $ million
Group			
2018			
Derivative assets	65.8	(37.7)	28.1
2017			
Derivative assets	108.8	(33.4)	75.4

Types of financial liabilities	Gross amounts of recognised financial liabilities $ million	Related amounts not offset in the balance sheet – financial instruments $ million	Net amounts $ million
Group			
2018			
Derivative liabilities	233.5	(37.7)	195.8
2017			
Derivative liabilities	108.2	(33.4)	74.8

Types of financial assets	Gross amounts of recognised financial assets $ million	Related amounts not offset in the balance sheet – financial instruments $ million	Net amounts $ million
Company			
2018			
Derivative assets	12.2	–	12.2
2017			
Derivative assets	0.4	–	0.4

Types of financial liabilities	Gross amounts of recognised financial liabilities $ million	Related amounts not offset in the balance sheet – financial instruments $ million	Net amounts $ million
Company			
2018			
Derivative liabilities	2.1	–	2.1
2017			
Derivative liabilities	14.8	–	14.8

The gross and net amounts of financial assets and financial liabilities as presented in the balance sheet that are disclosed in the above tables are measured at fair value.

12 Available-for-sale financial assets

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Non-current				
Investment in quoted debt securities	146.7	160.3	146.7	160.3
Equity investment	8.9	5.5	–	–
	155.6	165.8	146.7	160.3
Current				
Investment in quoted debt securities	–	29.6	–	29.6

13 Inventories

	Group	
	2018 $ million	2017 $ million
Cables	24.6	32.0
Pipes and fittings	4.8	5.2
Spare parts and accessories	4.1	4.3
Other consumables	10.7	7.5
	44.2	49.0

In 2018, inventories recognised as an expense in the income statement amounted to $5.7 million (2017: $6.9 million). The write-down of inventories to net realisable value by the Group amounted to $2.7 million (2017: $4.2 million). The reversal of write-down by the Group amounted to $0.1 million (2017: Nil).

14 Trade and other receivables

	Note	Group		Company	
		2018 $ million	2017 $ million	2018 $ million	2017 $ million
Trade receivables					
- Third parties		222.1	156.4	–	–
- Subsidiaries		–	–	27.0	56.4
- Joint ventures		1.9	–	1.1	–
- Related corporations		16.0	3.2	–	–
	14a	240.0	159.6	28.1	56.4
Accrued revenue		203.8	220.7	–	–
Other receivables, deposits and prepayments	14b	74.8	42.5	5.9	10.8
Amounts due from (non-trade):					
- Subsidiaries	14c	–	–	4,149.5	3,884.2
- Associate	14c	7.3	7.8	–	–
- Related corporations	14c	0.5	0.4	–	–
		526.4	431.0	4,183.5	3,951.4

14a Trade receivables

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Trade receivables	247.7	168.1	28.1	56.4
Impairment losses	(7.7)	(8.5)	–	–
	240.0	159.6	28.1	56.4

$152.5 million (2017: $120.5 million) of trade receivables are interest-bearing. The average credit term is between 5 to 30 business days (2017: 5 to 30 business days). An allowance has been made for estimated unrecoverable amounts, determined by reference to past default experience of individual debtors and collective portfolio.

Collateral in the form of bank guarantees, letters of credit and deposits are obtained from counterparties where appropriate. The amounts called upon during the current and previous financial year were insignificant and no item is individually significant.

The maximum exposure to credit risk for trade receivables at the reporting date by types of customer is as follows:

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Contestable transmission/ distribution customers	77.6	24.5	–	–
Non-contestable transmission/ distribution customers	112.7	102.2	–	–
Project-based customers	7.7	12.6	–	–
Others	42.0	20.3	28.1	56.4
	240.0	159.6	28.1	56.4

The maximum exposure to credit risk for trade receivables at the reporting date by geographic region is as follows:

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Singapore	240.0	159.6	28.1	56.4

There is no significant concentration of credit risk of trade receivables.

The Group has policies in place to monitor its credit risk. Contractual deposits are collected and sufficient collateral is obtained to mitigate the risk of financial loss from defaults. The Group's customers are spread across diverse industries and ongoing credit evaluation is performed on the financial condition of receivables to ensure minimal exposure to bad debts.

The ageing of trade receivables at the reporting date is as follows:

	2018		2017	
	Gross $ million	Impairment losses $ million	Gross $ million	Impairment losses $ million
Group				
Not past due	199.3	(0.7)	125.4	(0.5)
Past due 0-30 days	23.1	(0.6)	23.4	(0.7)
Past due 31-90 days	17.7	(1.1)	10.4	(0.9)
Past due 91-180 days	3.2	(1.6)	3.2	(1.2)
Past due more than 180 days	4.4	(3.7)	5.7	(5.2)
	247.7	(7.7)	168.1	(8.5)

	2018		2017	
	Gross $ million	Impairment losses $ million	Gross $ million	Impairment losses $ million
Company				
Not past due	10.1	–	44.4	–
Past due 0-30 days	17.1	–	3.1	–
Past due 31-90 days	0.9	–	0.9	–
Past due 91-180 days	–	–	2.9	–
Past due more than 180 days	–	–	5.1	–
	28.1	–	56.4	–

The movement in impairment loss in respect of trade receivables during the year is as follows:

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
At 1 April	8.5	9.8	–	–
Impairment loss recognised	0.6	0.1	–	–
Impairment loss reversed	(0.5)	(1.2)	–	–
Impairment loss utilised	(0.9)	(0.1)	–	–
Reclass to assets held-for-sale	–	(0.1)	–	–
At 31 March	7.7	8.5	–	–

Receivables are denominated mainly in the functional currencies of the respective Group entities.

14b Other receivables, deposits and prepayments

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Prepayments	25.3	24.9	1.2	1.6
Interest receivables	9.3	12.2	4.3	8.4
Finance lease receivables	2.2	2.8	–	–
Deposits	1.9	2.2	0.3	0.8
Others	36.1	0.4	0.1	–
	74.8	42.5	5.9	10.8

Other receivables, deposits and prepayments are denominated mainly in the functional currencies of the respective Group entities.

14c Balances with subsidiaries, associate and related corporations (non-trade)

Balances with subsidiaries are unsecured, repayable on demand, and denominated in Singapore dollars.

Non-trade amounts due from subsidiaries of $1,134.9 million (2017: $1,845.3 million) bear interest at rates ranging from 1.55% to 3.47% (2017: 1.51% to 3.47%) per annum. All other amounts are non interest-bearing.

The current amount due from associate is denominated in Australian dollars and represents the convertible instrument interest receivable which is due every six months.

15 Cash and cash equivalents

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Fixed deposits	1,475.7	1,352.6	554.9	805.6
Cash at bank and in hand	157.2	323.9	38.6	72.4
Restricted cash	1.7	0.6	–	–
	1,634.6	1,677.1	593.5	878.0

The interest rates per annum relating to fixed deposits at the reporting date for the Group and the Company ranged from 1.3% to 2.6% (2017: 0.8% to 1.9%) and 1.3% to 2.2% (2017: and 0.8% to 1.7%) respectively.

Cash and cash equivalents are denominated mainly in the functional currencies of the respective Group entities and includes $1.7 million (2017: $0.6 million) of restricted cash balances being held for the purpose of administrating the Gas Network Code.

16 Disposal group held-for-sale

During the previous financial year, the Group entered into an agreement with Singapore Technologies Electronics Limited to divest a 51 per cent equity stake in SP Telecommunications Pte Ltd ("SP Tel") and received regulatory approval in March 2017. Accordingly, the Group's interests in SP Tel is presented as a disposal group held-for-sale as at 31 March 2017. The divestment was completed on 2 May 2017 (Note 8).

Assets and liabilities of disposal group held-for-sale

At 31 March 2017, the disposal group was stated at carrying value, and comprised the following assets and liabilities:

	Group 2017 $ million
Total assets	122.4
Total liabilities	(19.6)
Net asset before intercompany eliminations	102.8
Consolidation adjustments	(82.0)
Disposal group held-for-sale	20.8
Assets held-for-sale	37.6
Liabilities held-for-sale	(16.8)
Disposal group held-for-sale	20.8

There are no cumulative income or expenses included in other comprehensive income relating to the disposal group.

Measurement of fair values - Fair value hierarchy

The disposal group has been categorised as a level two fair value, within the fair value hierarchy disclosure required under FRS 113 *Fair Value Measurement*, based on the observable divestment transaction value with Singapore Technologies Electronics Limited that was completed on 2 May 2017.

17 Share capital

	Company	
	2018 No. of shares million	2017 No. of shares million
Ordinary shares		
Issued and fully-paid, with no par value		
At 1 April and at 31 March	2,911.9	2,911.9

The holder of ordinary shares is entitled to receive dividends as declared from time to time, and is entitled to one vote per share at meetings of the Company. All shares rank equally with regard to the Company's residual assets.

18 Reserves

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Currency translation reserve	(410.3)	(225.5)	–	–
Hedging reserve	(15.2)	18.8	0.3	1.4
Other reserves	26.9	19.3	(0.9)	1.8
	(398.6)	(187.4)	(0.6)	3.2

The currency translation reserve comprises all foreign exchange differences arising from the translation of the financial statements of foreign operations whose functional currencies are different from the presentation currency of the Company.

The hedging reserve comprises the effective portion of the cumulative net change in the fair value of cash flow hedging instruments relating to hedged transactions that have not occurred.

Other reserves comprise of the following:

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Actuarial reserve	27.2	18.6	–	–
Fair value reserve	1.1	2.1	(0.9)	1.8
Revaluation reserve	16.5	16.5	–	–
Others	(17.9)	(17.9)	–	–
	26.9	19.3	(0.9)	1.8

Others in other reserve is the difference amount of $17.9 million, between the cash consideration of $70.0 million and the value of minority interests of $52.1 million, which arose from an equity transaction for the acquisition of the remaining 40 per cent shareholding in a subsidiary, Singapore District Cooling Pte Ltd, on 30 March 2015.

19 Debt obligations

Principal amount	Date of maturity	Group 2018 $ million	Group 2017 $ million
Fixed rate notes			
SGD 500 million	October 2018	507.1	519.1
HKD 500 million [1]	May 2019	84.0	92.7
SGD 75 million	May 2019	77.0	78.2
SGD 500 million	May 2020	499.3	499.0
SGD 280 million	August 2020	284.5	293.1
SGD 100 million	August 2022	101.8	103.0
USD 500 million [2]	September 2022	653.8	696.3
JPY 15 billion [3]	April 2024	194.9	204.9
SGD 75 million	May 2024	78.6	79.2
USD 700 million [4]	November 2025	898.6	971.7
JPY 7 billion [5]	October 2026	91.3	94.8
USD 600 million [6]	September 2027	743.9	–
SGD 100 million	May 2029	104.0	104.3
SGD 250 million	September 2032	249.1	249.0
		4,567.9	3,985.3
Floating rate loan			
EMA loan [7]	By June 2024	203.5	162.2
Floating rate note			
USD 100 million [8]	July 2017	–	139.7
		4,771.4	4,287.2

(1) HKD 500 million swapped to SGD 95.5 million

(2) USD 500 million swapped to SGD 623.8 million

(3) JPY 15 billion swapped to SGD 230.0 million

(4) USD 700 million swapped to SGD 996.0 million

(5) JPY 7 billion swapped to SGD 114.7 million

(6) USD 600 million swapped to SGD 808.5 million

(7) The Group acts as an intermediary in administering the market settlement for a regulatory scheme. The EMA has entered into loan agreements with the Group in facilitating the above arrangement. The loan agreements are only for the purpose of settling payments, collections and costs for the implementation of the regulatory scheme. The floating rate SGD loan is unsecured, bears interest at rates ranging from 0.97% to 1.69% (2017: 0.97% to 1.04%) per annum and is repayable monthly based on net collection under the regulatory scheme until loan maturity or full repayment whichever is earlier.

(8) USD 100 million swapped to SGD 139.5 million

Interest rates on debt obligations denominated in Singapore dollars range from 0.97% to 5.07% (2017: 0.97% to 5.07%) per annum. Interest rates on foreign currency debt obligations range from 1.95% to 4.01% (2017: 1.70% to 4.01%) per annum.

A reconciliation of liabilities arising from financing activities is as follows:

	2017	Cash flows	Non-cash changes					2018
			Foreign exchange movement	Interest on loan	Changes in fair value	Amortisation	Reclassification	
	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
Notes and loans								
Current	139.7	(139.4)	(0.3)	–	(12.0)	–	544.3	532.3
Non-current	4,147.5	842.1	(135.0)	2.4	(73.9)	0.3	(544.3)	4,239.1
	4,287.2	702.7	(135.3)	2.4	(85.9)	0.3	–	4,771.4

20 Other non-current liabilities

	Note	Group 2018 $ million	Group 2017 $ million
Deferred income	20a	677.3	703.3
Deferred construction costs compensation	20b	259.3	–
Provisions	20c	0.9	0.9
		937.5	704.2

20a Deferred income

	Group 2018 $ million	Group 2017 $ million
Government grants	69.9	69.7
Compensation for operating expenses	15.0	–
Customer contributions	565.2	565.2
	650.1	634.9
Accumulated accretion:		
Government grants	(46.8)	(44.4)
Customer contributions	(288.2)	(269.7)
	(335.0)	(314.1)
Deferred income relating to:		
- Use of system charges and transportation of gas	362.2	382.5
- Sale of electricity and Market Support Service Licence fees	57.0	64.0
	734.3	767.3

	Group	
	2018 $ million	2017 $ million
Current (Note 21a)	57.0	64.0
Non-current	677.3	703.3
	734.3	767.3

Movements in accumulated accretion are as follows:

	Group	
	2018 $ million	2017 $ million
Government grants		
At 1 April	44.4	41.7
Accretion	2.4	2.7
At 31 March	46.8	44.4
Customer contributions		
At 1 April	269.7	251.1
Accretion	18.5	18.6
At 31 March	288.2	269.7

20b Deferred construction cost compensation

The following compensation was received during the year:

	Group	
	2018 $ million	2017 $ million
Deferred construction cost compensation	259.3	–

20c Provisions

	Group			Company		
	Restoration $ million	Others $ million	Total $ million	Restoration $ million	Others $ million	Total $ million
At 1 April 2016	3.8	2.6	6.4	2.3	2.0	4.3
Provision made	2.3	6.2	8.5	1.2	4.9	6.1
Provision reversed	–	(0.1)	(0.1)	–	–	–
At 31 March 2017	6.1	8.7	14.8	3.5	6.9	10.4
Provision made	2.8	–	2.8	0.1	–	0.1
Provision reversed	(4.5)	(1.2)	(5.7)	(3.5)	(6.9)	(10.4)
Provision utilised	(1.3)	(6.9)	(8.2)	–	–	–
At 31 March 2018	3.1	0.6	3.7	0.1	–	0.1

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Current (Note 21a)	2.8	13.9	0.1	10.4
Non-current	0.9	0.9	–	–
	3.7	14.8	0.1	10.4

Restoration

A provision for restoration cost is recognised when a Group entity has a legal or constructive obligation to make good and restore a site. The expected future restoration cost is discounted using a pre-tax rate which is the basis of the provision recognised. The unwinding of the discount increases the net present value of the expected liability over time, which is recognised as an accretion expense in profit or loss.

Others

Other provisions relate mainly to the general operations of the business.

21 Trade and other payables

	Note	Group		Company	
		2018 $ million	2017 $ million	2018 $ million	2017 $ million
Customers' deposits		304.6	313.7	–	–
Trade payables					
- Third parties		276.4	226.1	6.3	4.5
- Subsidiaries		–	–	6.7	0.7
- Associates		–	0.3	–	–
- Joint ventures		2.9	3.1	–	–
- Related corporations		7.8	7.5	–	–
Other payables and accruals	21a	882.4	886.4	29.1	41.7
Liability for employee entitlements		14.5	14.2	3.4	3.1
Amounts due to (non-trade):					
- Subsidiaries		–	–	3,713.0	3,829.0
		1,488.6	1,451.3	3,758.5	3,879.0

Payables are denominated mainly in the functional currencies of the respective Group entities.

Balances with related corporations are unsecured, with credit terms ranging from 7 to 30 days (2017: 7 to 30 days) and are denominated in Singapore dollars.

Balances with subsidiaries are unsecured, repayable on demand and denominated in Singapore dollars. Non-trade amounts due to subsidiaries of $827.4 million (2017: $927.0 million) bear interest at 1.55% (2017: 1.25%) per annum. All other amounts are non interest-bearing.

21a Other payables and accruals

	Note	Group		Company	
		2018 $ million	2017 $ million	2018 $ million	2017 $ million
Accrued operating and capital expenditure		570.5	549.5	28.8	30.6
Advance receipts		155.2	172.2	0.2	0.7
Deferred income	20a	57.0	64.0	–	–
Interest payable		32.9	33.4	–	–
Provisions	20c	2.8	13.9	0.1	10.4
Others		64.0	53.4	–	–
		882.4	886.4	29.1	41.7

Payables are denominated mainly in the functional currencies of the respective Group entities.

22 Revenue

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Sale of electricity	2,545.1	2,414.9	–	–
Use of system charges and transportation of gas	1,193.4	1,034.5	–	–
Market Support Services Licence fees	170.3	124.6	–	–
Agency fees	94.6	89.8	–	–
District cooling service income	64.3	58.2	–	–
Dividend income from subsidiaries and joint ventures	–	–	442.7	432.7
Support service income	–	–	88.1	99.1
Rental income	–	–	1.0	1.3
Others	–	–	1.0	0.6
	4,067.7	3,722.0	532.8	533.7

During the year, revenue contributed by one of the subsidiaries of the Group, SP Services Limited, includes accrued revenue recoverable of $19.5 million and transfers from deferred income of $30.9 million which are amounts pertaining to recognition of allowed regulated revenue for the current regulatory period ended 31 March 2018.

23 Other income

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Income relating to diversion jobs	69.3	51.7	–	–
Income relating to supply of telecommunication systems	1.2	31.3	–	–
Sale of scrap	22.1	21.9	–	–
Accretion of deferred income	20.9	21.3	–	–
Finance lease income	18.6	19.2	–	–
Rental income	4.9	5.1	–	–
Exchange gain	–	8.2	–	1.2
Gain from disposal of subsidiary (Note 8)	5.5	–	8.9	–
Others	43.1	30.3	–	–
	185.6	189.0	8.9	1.2

24 Finance income

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Interest income receivable or received from:				
- Subsidiaries	–	–	48.6	50.0
- Associates	34.4	34.1	–	–
- Banks	23.7	20.1	11.1	8.5
- Finance lease	1.0	1.2	–	–
- Available-for-sale assets	6.1	7.0	6.1	7.0
Others	3.3	3.2	–	–
	68.5	65.6	65.8	65.5

25 Finance costs

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Interest expense payable or paid to:				
- Subsidiaries	–	–	11.1	10.3
- Banks	2.4	2.3	–	–
- Debt obligations	120.4	113.9	–	–
Net change in fair value of cash flow hedges reclassified from equity	(17.4)	(19.6)	0.3	(0.4)
(Gain)/Loss arising from financial assets and liabilities in a fair value hedge				
- Hedged items	(41.4)	(27.6)	–	–
- Hedging instruments	46.5	28.8	–	–
Net change in fair value of financial assets and liabilities designated at fair value through profit or loss	1.6	5.9	–	–
Amortisation of transaction costs capitalised	3.2	3.5	–	0.3
Ineffective portion of changes in fair value of cash flow hedges	30.0	13.8	–	–
Amortisation of fair value adjustments on fair value hedges	(25.2)	(25.0)	–	–
Commitment fees	2.9	4.0	–	0.5
Others	0.5	2.2	0.5	2.0
	123.5	102.2	11.9	12.7

26 Tax expense

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Tax recognised in profit or loss				
Current tax expense				
Current year	132.6	124.2	10.7	13.6
Under/(over) provision in respect of prior years	6.9	2.7	(0.7)	0.5
	139.5	126.9	10.0	14.1
Deferred tax expense/(credit)				
Origination and reversal of temporary differences	62.5	59.8	0.9	(0.6)
Over provision in respect of prior years	(5.0)	(3.5)	–	–
	57.5	56.3	0.9	(0.6)
Total tax expense	197.0	183.2	10.9	13.5

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Reconciliation of effective tax rate:				
Profit before tax from continuing operations	1,219.3	1,132.0	491.6	478.0
Tax calculated using Singapore tax rate of 17%	207.3	192.4	83.6	81.3
Effects of results of associates and joint ventures, net of tax	(22.5)	(14.2)	–	–
Non-deductible expenses	21.7	19.4	4.8	5.9
Under/(over) provision in respect of prior years:				
- current tax	6.9	2.7	(0.7)	0.5
- deferred tax	(5.0)	(3.5)	–	–
Non-taxable income and tax allowances	(13.9)	(10.7)	(77.1)	(73.7)
Effect of tax rate in other countries	0.1	(3.1)	–	–
Current year losses for which no deferred tax asset was recognised	1.8	1.3	–	–
Others	0.6	(1.1)	0.3	(0.5)
	197.0	183.2	10.9	13.5

	2018			2017		
Tax recognised in other comprehensive income	**Before tax $ million**	**Tax credit / (expense) $ million**	**Net of tax $ million**	**Before tax $ million**	**Tax credit $ million**	**Net of tax $ million**
Group						
Translation differences relating to financial statements of foreign operations	(184.8)	–	(184.8)	101.4	–	101.4
Effective portion of changes in fair value of cash flow hedges	(4.2)	0.1	(4.1)	(16.3)	3.1	(13.2)
Net change in fair value of cash flow hedges						
- reclassified to profit or loss	10.3	(1.4)	8.9	(4.6)	0.8	(3.8)
- on recognition of the hedged items on balance sheet	(2.0)	0.2	(1.8)	(2.2)	0.4	(1.8)
Net change in fair value of available-for-sale financial assets	(1.1)	0.1	(1.0)	0.2	–	0.2
Share of other comprehensive income of associates	(28.4)	–	(28.4)	43.6	–	43.6
	(210.2)	(1.0)	(211.2)	122.1	4.3	126.4

	2018			2017		
Company	**Before tax $ million**	**Tax credit / (expense) $ million**	**Net of tax $ million**	**Before tax $ million**	**Tax (expense) / credit $ million**	**Net of tax $ million**
Effective portion of changes in fair value of cash flow hedges	(0.4)	(0.2)	(0.6)	3.5	(0.2)	3.3
Net change in fair value of cash flow hedges						
- reclassified to profit or loss	0.4	(0.1)	0.3	0.4	(0.1)	0.3
- on recognition of the hedged items on balance sheet	(1.0)	0.2	(0.8)	(0.3)	0.1	(0.2)
Net change in fair value of available-for-sale financial assets	(2.7)	–	(2.7)	(0.1)	–	(0.1)
	(3.7)	(0.1)	(3.8)	3.5	(0.2)	3.3

27 Profit for the year

The following items have been included in arriving at profit for the year:

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Fees paid to non-executive directors of the Company	1.2	1.5	1.2	1.4
Fees paid to non-executive directors of subsidiaries of the Group	0.1	0.1	–	–
Operating lease expense	6.1	20.4	6.0	7.3
Exchange loss/(gain), net	9.4	(8.2)	0.8	(1.2)
Contributions to defined contribution plans included in staff costs	43.0	43.6	6.1	5.4

28 Related parties

For the purpose of the financial statements, parties are considered to be related to the Group if the Group has the ability, directly or indirectly, to control the party or exercise significant influence over the party in making financial and operating decisions, or vice versa, or where the Group and the party are subject to common control or common significant influence. Related parties may be individuals or other entities.

The Company is a wholly-owned subsidiary of Temasek Holdings (Private) Limited ("Temasek"), which is its holding company and is incorporated in the Republic of Singapore. Temasek is an investment company headquartered in Singapore with a diversified investment portfolio. Accordingly, all the subsidiaries of Temasek are related corporations and are subject to common control. The Group and the Company engage in a wide variety of transactions with related corporations in the normal course of business on terms similar to those available to other customers. Such transactions include but are not limited to sales and purchases of power, provision of consultancy and engineering services, leasing of cables and ducts, agency services and financial and banking services. The related party transactions are carried out on terms negotiated between the parties which are intended to reflect competitive terms.

All transactions with companies in Temasek group are related party transactions. The Temasek group has extensive interests in a large number of companies. As the Group's rates for use of system charges, transportation of gas, sales of electricity and Market Support Services Licence fees are based on posted tariffs approved by EMA, the Group has concluded that it is not meaningful to present such information.

Other than electricity sales and transactions to related corporations included under Temasek group and those sales and transactions disclosed elsewhere in the financial statements, significant transactions with related parties are as follows:

	Group		Company	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Related corporations				
- Agency fee income	5.4	5.2	–	–
- Revenue from leasing of ducts and substations	18.6	27.5	–	–
Subsidiaries				
- Dividend income	–	–	440.7	430.6
- Support service income	–	–	88.1	99.1
- Interest income	–	–	48.6	50.0
- Interest expense	–	–	(11.1)	(10.3)
Associates				
- Dividend income	185.3	160.8	–	–
Joint ventures				
- Dividend income	2.0	2.1	2.0	2.1
- Leasing of ducts and substations	5.1	–	–	–
Key management compensation				
- Short-term employee benefits	22.4	20.5	17.7	16.9

29 Operating segments

(a) Analysis by business segments

The Group is organised into four main reportable segments, namely:

- Singapore Transmission & Distribution ("T&D") segment - Includes transmission and distribution of electricity and transportation of gas. This reportable segment has been formed by aggregating the electricity transmission & distribution segment and transportation of gas segment, which are regarded by management to exhibit similar economic characteristics. In making this judgement, management considers the services offered by these segments such as use of system charges and transportation of gas as being in the areas of common.

- Australia segment - Includes mainly the transmission and distribution of electricity and gas and asset management business.

- Market support business segment - Includes sales of electricity, market support services to the electricity market and provision of support services for mainly the local utility suppliers and waste collection service providers.

- Others – Includes investment holding services, management consultancy services, leasing of ducts and substations, district cooling services, engineering and commission services in the field of power quality monitoring system, protection systems, power systems and substation control system.

Except as indicated above, no operating segments have been aggregated to form the above reportable operating segments.

The chief operating decision maker monitors the operating results of its business units separately for the purpose of making decisions about resource allocation and performance assessment.

Information about reportable segments

	Singapore T&D segment $ million	Australia segment $ million	Market Support Business segment $ million	Others $ million	Inter-segment elimination $ million	Total $ million
2018						
External revenue	1,193.4	–	2,810.0	64.3	–	4,067.7
Inter-segment revenue	599.0	–	37.7	–	(636.7)	–
	1,792.4	–	2,847.7	64.3	(636.7)	4,067.7
Segment result	1,512.2	–	181.3	463.4	(442.9)	1,714.0
Depreciation	(540.5)	–	(13.8)	(24.9)	–	(579.2)
Amortisation	(14.3)	–	(14.9)	(2.9)	–	(32.1)
Finance income	3.8	–	12.6	109.7	(57.6)	68.5
Finance costs	(167.1)	–	(2.6)	(11.4)	57.6	(123.5)
Share of profit of associates	–	177.4	–	–	–	177.4
Share of loss of joint ventures	–	–	–	(5.8)	–	(5.8)
Profit/(Loss) before taxation	794.1	177.4	162.6	528.1	(442.9)	1,219.3
Tax expense	(139.0)	9.5	(27.2)	(40.3)	–	(197.0)
Profit/(Loss) for the year	655.1	186.9	135.4	487.8	(442.9)	1,022.3

	Singapore T&D segment $ million	Australia segment $ million	Market Support Business segment $ million	Others $ million	Inter-segment elimination $ million	Total $ million
2018						
Segment assets and liabilities						
Other assets	12,659.1	–	1,289.3	4,919.3	(2,549.4)	16,318.3
Associates and joint ventures	–	2,790.2	–	53.6	–	2,843.8
Segment assets	12,659.1	2,790.2	1,289.3	4,972.9	(2,549.4)	19,162.1
Segment liabilities	9,641.6	17.0	907.8	919.0	(2,547.2)	8,938.2
Capital expenditure	1,326.9	–	60.8	40.7	–	1,428.4

	Singapore T&D segment $ million	Australia segment $ million	Market Support Business segment $ million	Others $ million	Inter-segment elimination $ million	Total $ million
2017						
External revenue	1,034.5	–	2,629.3	58.2	–	3,722.0
Inter-segment revenue	656.0	–	36.5	0.5	(693.0)	–
	1,690.5	–	2,665.8	58.7	(693.0)	3,722.0
Segment result	1,385.8	–	104.8	471.1	(428.3)	1,533.4
Depreciation	(516.5)	–	(8.3)	(23.7)	–	(548.5)
Amortisation	(15.9)	–	(15.7)	(2.8)	–	(34.4)
Finance income	4.2	–	11.1	107.6	(57.3)	65.6
Finance costs	(145.6)	–	(2.6)	(11.3)	57.3	(102.2)
Share of profit of associates	–	216.4	–	–	–	216.4
Share of profit of joint venture	–	–	–	1.7	–	1.7
Profit/(Loss) before taxation	712.0	216.4	89.3	542.6	(428.3)	1,132.0
Tax expense	(124.6)	(19.0)	(15.6)	(24.0)	–	(183.2)
Profit/(Loss) for the year	587.4	197.4	73.7	518.6	(428.3)	948.8

	Singapore T&D segment $ million	Australia segment $ million	Market Support Business segment $ million	Others $ million	Inter-segment elimination $ million	Total $ million
2017						
Segment assets and liabilities						
Other assets	11,924.4	–	1,188.2	4,802.8	(3,104.0)	14,811.4
Associates and joint venture	–	2,986.7	–	8.0	–	2,994.7
Segment assets	11,924.4	2,986.7	1,188.2	4,810.8	(3,104.0)	17,806.1
Segment liabilities	9,196.9	26.5	895.1	989.7	(3,094.9)	8,013.3
Capital expenditure	1,212.1	–	76.2	97.0	–	1,385.3

(b) Analysis by types of services

Revenue is based on services rendered regardless of geographical areas of the operations or assets.

	2018 $ million	2017 $ million
Sales of electricity	2,545.1	2,414.9
Use of system charges	986.7	842.6
Transportation of gas	206.7	191.9
Agency fees	94.6	89.8
Market Support Services Licence fees	170.3	124.6
District cooling service income	64.3	58.2
	4,067.7	3,722.0

(c) Analysis by geographic areas

Revenue is based on location of the operations. Non-current assets, excluding derivative financial instruments, convertible instrument and deferred tax assets, available-for-sale assets are based on location of those assets.

	Revenue		Non-current assets	
	2018 $ million	2017 $ million	2018 $ million	2017 $ million
Singapore	4,067.7	3,722.0	13,589.7	11,946.2
Australia	–	–	2,790.2	2,986.7
China	–	–	12.1	4.0
	4,067.7	3,722.0	16,392.0	14,936.9

The Group has a large and diversified customer base which consists of individuals and corporations. There was no single customer that contributed 10% or more of the Group's revenue for the financial year ended 31 March 2017 and 31 March 2018.

30 Financial risk management

The Group's activities expose it to foreign currency, interest rate, market price, credit and liquidity risks which arise in the normal course of business. The Group manages its exposure to these risks in accordance with its risk management policies. The Executive Committee and Board Risk Management Committee review and approve risk management policies. The Board Risk Management Committee assists the Board of Directors in managing the risks of the Group.

The Group utilises a variety of financial instruments to manage its exposure to interest rate and foreign exchange risks, including:

- spot and forward foreign exchange contracts;
- interest rate swaps; and
- cross-currency interest rate swaps.

The Group does not enter into or trade financial instruments, including derivative financial instruments, for speculative purposes.

The material financial risks associated with the Group's activities are each described below, together with details of the Group's policies for managing the risks.

Foreign currency risk

The Group is exposed to foreign currency risks from borrowing activities, purchase, supply and installation contracts, cash and cash equivalents and trade creditors which are denominated in currencies other than Singapore dollars (or the functional currency in the case of foreign subsidiaries).

The objective of the Group's risk management policies is to mitigate foreign exchange risk by utilising various hedging instruments. The Group therefore considers avoidable currency risk exposure to be minimal for the Group.

The Group enters into cross-currency interest rate swaps to manage exposures arising from foreign currency borrowings including the US dollar, Hong Kong dollar and Japanese Yen. Under cross-currency interest rate swaps, the Group agrees to exchange specified foreign currency principal and interest amounts at an agreed future date at a pre-determined exchange rate. Such contracts enable the Group to mitigate the risk of adverse movements in foreign exchange rates. Except where a foreign currency borrowing is taken with the intention of providing a natural hedge by matching the underlying cash flows, all foreign currency borrowings are swapped back to Singapore dollars or the functional currency of the subsidiary concerned. For foreign exchange swaps that do not meet the requirements of hedge accounting, changes in fair value are recorded in profit or loss.

The Group uses forward foreign exchange contracts to substantially hedge foreign currency risk attributable to purchase transactions. The maturities of the forward foreign exchange contracts are intended to match the forecasted progress payments of the supply and installation contracts. Whenever necessary, the forward foreign exchange contracts are either rolled over at maturity or translated into foreign currency deposits, whichever is more cost efficient.

The Group's investments in its overseas subsidiaries, which are denominated in foreign currencies, are managed on a case-by-case basis.

As at 31 March 2018, the Group has outstanding forward foreign exchange contracts and foreign exchange swaps with notional amounts of approximately $688.7 million (2017: $780.9 million). The net fair value of forward foreign exchange contracts and foreign exchange swaps for the Group as at 31 March 18 was $12.5 million net assets (2017: $14.2 million net liabilities) comprising assets of $15.8 million (2017: $2.0 million) and liabilities of $3.3 million (2017: $16.2 million). These amounts were recognised as derivative assets and liabilities respectively.

Sensitivity analysis for foreign currency risk

As at 31 March 2018 and 2017, if the SGD had moved against each of the currencies as illustrated in the table below, with all other variables held constant, profit before tax and equity would have been affected as below:

	Group		Company	
	Profit before tax $ million	Equity (hedging reserve) $ million	Profit before tax $ million	Equity (hedging reserve) $ million
Judgements of reasonably possible movements –(decrease)/increase:				
2018				
US Dollar				
Increase of the SGD by 7 per cent against US Dollar	–	(2.0)	–	(0.3)
Decrease of the SGD by 7 per cent against US Dollar	–	2.0	–	0.3
Euro				
Increase of the SGD by 11 per cent against Euro	–	(0.1)	–	–
Decrease of the SGD by 11 per cent against Euro	–	0.1	–	–
Japanese Yen				
Increase of the SGD by 18 per cent against Japanese Yen	–	(7.2)	–	–
Decrease of the SGD by 18 per cent against Japanese Yen	–	7.2	–	–
Australian Dollar				
Increase of the SGD by 11 per cent against Australian Dollar	(11.7)	–	–	–
Decrease of the SGD by 11 per cent against Australian Dollar	11.7	–	–	–
Chinese Yuan Renminbi				
Increase of the SGD by 7 per cent against Chinese Yuan Renminbi	(0.5)	(0.8)	–	–
Decrease of the SGD by 7 per cent against Chinese Yuan Renminbi	0.5	0.8	–	–

	Group		Company	
	Profit before tax $ million	Equity (hedging reserve) $ million	Profit before tax $ million	Equity (hedging reserve) $ million
Judgements of reasonably possible movements –(decrease)/increase:				
2017				
US Dollar				
Increase of the SGD by 6 per cent against US Dollar	–	(3.4)	–	(0.4)
Decrease of the SGD by 6 per cent against US Dollar	–	3.4	–	0.4
Euro				
Increase of the SGD by 12 per cent against Euro	–	(1.0)	–	–
Decrease of the SGD by 12 per cent against Euro	–	1.0	–	–
Japanese Yen				
Increase of the SGD by 19 per cent against Japanese Yen	–	(11.4)	–	–
Decrease of the SGD by 19 per cent against Japanese Yen	–	11.4	–	–
Australian Dollar				
Increase of the SGD by 10 per cent against Australian Dollar	(17.9)	–	–	–
Decrease of the SGD by 10 per cent against Australian Dollar	17.9	–	–	–
Chinese Yuan Renminbi				
Increase of the SGD by 8 per cent against Chinese Yuan Renminbi	–	(0.1)	–	–
Decrease of the SGD by 8 per cent against Chinese Yuan Renminbi	–	0.1	–	–

The judgements of reasonably possible movements were determined using statistical analysis of the 90th percentile (for Singapore operations) of the best and worst expected outcomes having regard to actual historical exchange rate data over the previous five years. Management considers that past movements are a reasonable basis for estimating possible movements in foreign currency exchange rates.

Interest rate risk

The Group manages its interest rate exposure by maintaining a significant portion of its debt at fixed interest rates. This is done by the (i) issuance of fixed rate debt; (ii) use of interest rate swaps to convert floating rate debt to fixed rate debt; or (iii) use of cross-currency interest rate swaps to convert fixed or variable rate non-functional currency denominated debt to fixed rate functional currency denominated debt.

The use of derivative financial instruments relates directly to the underlying existing and anticipated indebtedness.

As at 31 March 2018, the Group has interest rate and cross-currency interest rate swaps with a notional amount of $8,613.1 million (2017: $8,403.5 million). The Group classifies these swaps as cash flow and fair value hedges except for swaps of notional amount of $2,782.9 million (2017: $2,138.4 million) that do not meet the requirements of hedge accounting in which case, changes in fair value are recorded in the profit or loss. The net fair value of swaps of the Group as at 31 March 2018 was $180.2 million net liabilities (2017: $14.8 million net assets) comprising assets of $50.0 million (2017: $106.8 million) and liabilities of $230.2 million (2017: $92.0 million). These amounts are recognised as derivative assets and liabilities respectively. The Group's excess funds are principally invested in bank deposits of varying maturities to match its cash flow needs.

At the reporting date, if interest rates had moved as illustrated in the table below, with all other variables held constant, profit before tax and equity would have been affected as follows:

	Group		Company	
	Profit before tax $ million	**Equity (hedging reserve) $ million**	**Profit before tax $ million**	**Equity (hedging reserve) $ million**
Judgements of reasonably possible movements – increase/(decrease):				
2018				
Increase with all other variables held constant	10.0	(18.0)	(4.6)	–
Decrease with all other variables held constant	(7.4)	17.5	4.6	–
2017				
Increase with all other variables held constant	10.3	30.8	0.3	–
Decrease with all other variables held constant	(10.3)	(32.5)	(0.3)	–

The judgements of reasonably possible movements were determined using statistical analysis of the 90th percentile (for Singapore operations) best and worst expected outcomes having regard to actual historical interest rate data over the previous five years based on the six-month Singapore swap offer rate (for Singapore operations), three month Hong Kong interbank offer rate, three month USD London interbank offer rate ("LIBOR") and six month JPY LIBOR. Management considers that past movements are a reasonable basis for estimating possible movements in interest rates. As at 31 March 2018, the movements in interest rates used in the table above are as follows:

- Singapore interest rates – 79 basis points (2017: 79 basis points)
- United States interest rates – 48 basis points (2017: 38 basis points)
- Japan interest rates – 8 basis points (2017: 7 basis points)
- Hong Kong interest rates – 23 basis points (2017: 21 basis points)

Market price risk

Market price risk is the risk that the fair value or future cash flows of the Group's financial instruments will fluctuate because of changes in market prices (other than interest or exchange rates). The Group is exposed to price risk arising from its investment in fixed income securities. These securities are mainly listed in Singapore and are classified as available-for-sale financial assets.

For such investments classified as available-for-sale, a 5 per cent increase in market price would have increased the Group's and the Company's equity by $6.6 million after tax (2017: $8.5 million); an equal change in the opposite direction would have decreased the Group's and the Company's equity by $6.6 million after tax (2017: $8.5 million).

Credit risk

Credit risk is the risk of financial loss to the Group if a customer or a counterparty to a financial instrument fails to meet its contractual obligations. This arises principally from the Group's financial assets, comprising cash and cash equivalents, trade and other receivables and other financial instruments.

Surplus funds are invested in interest bearing deposits with financial institutions with good credit ratings assigned by international credit rating agencies. Counterparty risks are managed by limiting exposure to any individual counterparty. The Group's portfolio of financial instruments is entered into with a number of creditworthy counterparties, thereby mitigating concentration of credit risk. The Group held cash and cash equivalents of $1,634.6 million (2017: $1,677.1 million) which represents its maximum exposure on these assets.

Counterparty risks on derivatives are generally restricted to any gain or loss when marked to market, and not on the notional amount transacted. As a prudent measure, the Group enters into derivatives only with financial institutions with good credit ratings assigned by international credit rating agencies. Therefore, the possibility of a material loss arising from the non-performance by a counterparty is considered remote.

There is no significant concentration of credit risk of trade receivables. The credit quality of trade and other receivables that are not past due or impaired at the reporting date is of acceptable risk. In addition to customers' deposits, the Group holds guarantees from creditworthy financial institutions to secure the obligations of certain customers.

Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due. The Group adopts prudent liquidity risk management by maintaining sufficient cash and liquid financial assets, and ensures the availability of funding through an adequate level of bank credit lines and the establishment of medium term note programmes.

The following are the expected contractual undiscounted cash flows of financial liabilities, including interest payments and excluding the impact of netting agreements:

Group 2018	Carrying amount $ million	Total contractual cash (outflows)/ inflows $ million	Within 1 year $ million	1 – 2 years $ million	2 – 5 years $ million	More than 5 years $ million
Non-derivative financial liabilities						
Trade and other payables*	(1,259.1)	(1,259.1)	(1,259.1)	–	–	–
Debt obligations						
- current	(532.3)	(683.2)	(683.2)	–	–	–
- non-current	(4,239.1)	(4,979.8)	–	(315.0)	(1,971.0)	(2,693.8)
Derivatives						
Derivative assets						
Interest rate swaps/cross-currency interest rate swaps	50.0	66.8	15.7	13.4	36.2	1.5
Forward exchange contracts						
- Inflow		534.2	533.4	0.8	–	–
- Outflow		(518.4)	(517.6)	(0.8)	–	–
	15.8	15.8	15.8	–	–	–
Derivative liabilities						
Interest rate swaps/cross-currency interest rate swaps	(230.2)	(275.4)	0.9	(20.3)	(15.1)	(240.9)
Forward exchange contracts						
- Inflow		88.3	76.8	8.0	3.5	–
- Outflow		(91.5)	(79.4)	(8.4)	(3.7)	–
	(3.3)	(3.2)	(2.6)	(0.4)	(0.2)	–
Total	(6,198.2)	(7,118.1)	(1,912.5)	(322.3)	(1,950.1)	(2,933.2)

Group 2017	Carrying amount $ million	Total contractual cash (outflows)/ inflows $ million	Within 1 year $ million	1 – 2 years $ million	2 – 5 years $ million	More than 5 years $ million
Non-derivative financial liabilities						
Trade and other payables*	(1,187.0)	(1,187.0)	(1,187.0)	–	–	–
Debt obligations						
- current	(139.7)	(140.8)	(140.8)	–	–	–
- non-current	(4,147.5)	(4,933.0)	(137.8)	(660.5)	(1,365.9)	(2,768.8)
Derivatives						
Derivative assets						
Interest rate swaps/cross-currency interest rate swaps	106.8	124.4	9.4	17.7	24.2	73.1
Forward exchange contracts						
- Inflow		172.0	124.1	41.9	6.0	–
- Outflow		(170.0)	(122.6)	(41.3)	(6.1)	–
	2.0	2.0	1.5	0.6	(0.1)	–
Derivative liabilities						
Interest rate swaps/cross-currency interest rate swaps	(92.0)	(150.3)	11.6	(2.9)	(28.5)	(130.5)
Forward exchange contracts						
- Inflow		607.7	577.2	24.7	5.8	–
- Outflow		(624.2)	(592.7)	(25.5)	(6.0)	–
	(16.2)	(16.5)	(15.5)	(0.8)	(0.2)	–
Total	(5,473.6)	(6,301.2)	(1,458.6)	(645.9)	(1,370.5)	(2,826.2)