

INFORMATION MEMORANDUM



ABB FINANCE B.V.

(incorporated with limited liability in The Netherlands and having its corporate seat in Rotterdam)

ABB FINANCE (USA) INC.

(incorporated with limited liability in the state of Delaware)

**PROGRAMME FOR THE
ISSUANCE OF UP TO U.S.\$8,000,000,000 DEBT INSTRUMENTS**

Guaranteed by
ABB LTD

(incorporated with limited liability in Switzerland)

Under the programme for the issuance of debt instruments (the "**Programme**"), ABB Finance B.V. ("**ABB Netherlands**") and ABB Finance (USA) Inc. ("**ABB USA**", and, together with ABB Netherlands, the "**Issuers**"), subject to compliance with all relevant laws, regulations and directives, may from time to time issue instruments (the "**Instruments**") which benefit from a Guarantee ("**Guarantee**") entered into by ABB Ltd ("**ABB Ltd**" or the "**Guarantor**") effective as of April 1, 2019. The text of the Guarantee is reproduced in full in Schedule 1 of this Information Memorandum.

Application has been made to the Luxembourg Stock Exchange, in its capacity as market operator of the Euro MTF market (the "**Euro MTF Market**") under the Luxembourg law on prospectuses for securities dated July 10, 2005 (the "**Prospectus Act 2005**") for the Instruments issued under the Programme during the period of twelve months from the date of this Information Memorandum to be admitted to trading on the Euro MTF Market and admitted to listing on the Official List of the Luxembourg Stock Exchange. The Euro MTF Market is not a regulated market for the purposes of Directive 2014/65/EU on markets in financial instruments (as amended, "**MiFID II**"). This Information Memorandum is a prospectus for the purposes of the Prospectus Act 2005 and for the purposes of the admission to trading of the Instruments on the Euro MTF Market in accordance with the rules and regulations of the Luxembourg Stock Exchange. This document does not constitute a prospectus for the purposes of Article 3 of Directive 2003/71/EC (as amended or superseded, the "**Prospectus Directive**").

Application has been made to SIX Swiss Exchange Ltd ("**SIX Swiss Exchange**") for the Programme to be approved as an "issuance programme" for the listing and trading of bonds in accordance with the listing rules of SIX Swiss Exchange. Application may be made to list Instruments issued under the Programme on SIX Swiss Exchange during the period of twelve months after the date of approval by SIX Swiss Exchange of this Information Memorandum as an "issuance programme" for the listing of bonds. Instruments may also be issued under the Programme which will not be listed on any exchange.

The Instruments have not been and will not be registered under the U.S. Securities Act of 1933, as amended, (the "**Securities Act**") and may not be offered, sold or delivered in the United States or to, or for the benefit of, U.S. persons (as defined in Regulation S of the Securities Act) except in certain transactions exempt from the registration requirements of the Securities Act.

This Information Memorandum replaces the Information Memorandum dated March 1, 2018 in respect of the Programme.

Investing in Instruments issued under the Programme involves certain risks. The principal risk factors that may affect the ability of the Issuers and the Guarantor to fulfil their obligations under the Instruments issued under the Programme are discussed under "Risk Factors" below.

ARRANGER FOR THE PROGRAMME

BNP PARIBAS

DEALERS

BARCLAYS
BNP PARIBAS
CRÉDIT AGRICOLE CIB
DEUTSCHE BANK
HSBC
J.P. MORGAN
SOCIÉTÉ GÉNÉRALE CORPORATE & INVESTMENT
BANKING

BOFA MERRILL LYNCH
CITIGROUP
CREDIT SUISSE
GOLDMAN SACHS INTERNATIONAL
ING
MORGAN STANLEY
UBS INVESTMENT BANK

UNICREDIT BANK

April 1, 2019

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IMPORTANT NOTICE

Each of ABB Netherlands, ABB USA and ABB Ltd accepts responsibility for the information contained in this Information Memorandum.

ABB Netherlands declares that, having taken all reasonable care to ensure that such is the case, the information contained herein relating to ABB Netherlands and the Instruments, for which it is a relevant Issuer (as defined below) is, to the best of its knowledge, in accordance with the facts and contains no omission likely to affect its import.

ABB USA declares that, having taken all reasonable care to ensure that such is the case, the information contained herein relating to ABB USA and the Instruments, for which it is a relevant Issuer, is, to the best of its knowledge, in accordance with the facts and contains no omission likely to affect its import.

ABB Ltd declares that, having taken all reasonable care to ensure that such is the case, the information contained herein relating to ABB Ltd, its consolidated subsidiaries, including each of ABB Netherlands and ABB USA (together, the "**ABB Group**", "**ABB**" or the "**Group**") and the Guarantee is, to the best of its knowledge, in accordance with the facts and contains no omission likely to affect its import. In this Information Memorandum, references to "**the ABB Group**", "**ABB**", "**we**", "**our**" and "**us**" refer to ABB Ltd and its consolidated subsidiaries, including the Issuers, unless the context otherwise requires.

In this Information Memorandum, references to the "**Issuer**" are to either ABB Netherlands or ABB USA, as the case may be and references to the "Issuers" are to both of them. All references to the "**relevant Issuer**" shall be references to the Issuer which is the issuer or proposed issuer of such Instruments as specified in the relevant Final Terms (as defined herein).

Each Tranche (as defined herein) of Instruments will be issued on the terms set out herein under "*Terms and Conditions of the Instruments*" (the "**Conditions**") as amended and/or supplemented by a document specific to such Tranche called final terms (the "**Final Terms**") or in a separate information memorandum specific to such Tranche (the "**Drawdown Information Memorandum**") as described under "*Final Terms and Drawdown Information Memorandum*" below. In the case of a Tranche of Instruments which is the subject of a Drawdown Information Memorandum, each reference in this Information Memorandum to information being specified or identified in the relevant final terms shall be read and construed as a reference to such information being specified or identified in the relevant Drawdown Information Memorandum unless the context requires otherwise. This Information Memorandum must be read and construed together with any amendments or supplements hereto and with the information incorporated by reference herein and, in relation to any Tranche of Instruments which is the subject of Final Terms, must be read and construed together with the relevant Final Terms.

No person has been authorised to give any information or to make any representation regarding ABB Netherlands, ABB USA, the Guarantor or the ABB Group or the Instruments other than as contained in or extracted from or incorporated by reference in this Information Memorandum, the Dealership Agreement, the Fiscal Agency Agreement, the Deeds of Covenant (each as defined herein), the Guarantee or any Final Terms or in any public information or as approved in writing for such purpose by the relevant Issuer and the Guarantor and, if given or made, any such representation or information should not be relied upon as having been authorised by the relevant Issuer, the Guarantor or any member of the ABB Group or the Dealers or any of them.

None of the Dealers has separately verified the information contained in this Information Memorandum. No representation or warranty is made or implied by the Dealers or any of their respective affiliates, and neither the Dealers nor any of their respective affiliates makes any representation or warranty, as to the accuracy or completeness of the information contained herein. The Dealers assume no responsibility for this Information Memorandum.

Neither the delivery of this Information Memorandum or any Final Terms nor the offering, sale or delivery of any Instruments shall, in any circumstances, create any implication that the information contained in this Information Memorandum is true subsequent to the date hereof or the date upon which this Information Memorandum has been most recently amended or supplemented or that there has been no adverse change, or any event reasonably likely to involve any adverse change, in the prospects or financial or trading position of ABB Netherlands, ABB USA, the Guarantor or the ABB Group since the date hereof or the date upon which this document has been most recently amended or supplemented or that any other information

supplied in connection with the Programme is correct at any time subsequent to the date on which it is supplied or, if different, the date indicated in the document containing the same.

This Information Memorandum may be used in connection with the listing and admission to trading of not more than U.S.\$8,000,000,000 in aggregate principal amount of Instruments outstanding at any time (or the equivalent in any other currency at the date of the agreement for the issue of such Instruments). This Information Memorandum may only be used for the purpose for which it has been published. This document must be read in conjunction with all documents incorporated by reference in and forming part of this Information Memorandum (see under "*Documents Incorporated by Reference*") and shall be construed accordingly.

The distribution of this Information Memorandum and any Final Terms and the offering, sale and delivery of the Instruments in certain jurisdictions may be restricted by law. Persons into whose possession this Information Memorandum or any Final Terms comes are required by the relevant Issuer, the Guarantor and the Dealers to inform themselves about and to observe any such restrictions. For a description of certain restrictions on offers, sales and deliveries of Instruments and on the distribution of this Information Memorandum or any Final Terms and other offering material relating to the Instruments, see "*Subscription and Sale*". In particular, Instruments have not been and will not be registered under the Securities Act and may include Instruments in bearer form which are subject to U.S. tax law requirements. Subject to certain exceptions, Instruments may not be offered, sold or, in the case of Instruments in bearer form, delivered within the United States or to U.S. persons. In addition, ABB USA may only issue Instruments in registered form, except in the case of SIS Instruments (as defined below) in which case such Instruments shall be issued under procedures which result in the issuance of such Instruments as being in registered form for US tax purposes. This Information Memorandum and any Final Terms may not be used for the purpose of an offer or solicitation by anyone in any jurisdiction in which such offer or solicitation is not authorised or to any person to whom it is unlawful to make such offer or solicitation.

This Information Memorandum and any Final Terms do not constitute an offer or an invitation to subscribe for or purchase any Instruments and should not be considered as a recommendation by either of the Issuers, the Guarantor or any Dealer that any recipient of this Information Memorandum or any Final Terms should subscribe for or purchase any Instruments. Each recipient shall be taken to have made its own investigation and appraisal of the condition (financial or otherwise) of ABB Netherlands, ABB USA and the Guarantor.

In this Information Memorandum, all references to "**Euro**", "**euro**" and "**€**" are to the currency introduced at the start of the third stage of European economic and monetary union, and as defined in Article 2 of Council Regulation (EC) No 974/98 of 3 May 1998 on the introduction of the euro, as amended, all references to "**dollars**", "**U.S. dollars**", "**\$**", "**USD**" and "**U.S.\$**" are to the lawful currency of the United States of America, all references to "**Swiss Francs**", "**CHF**" and "**SFr**" are to the lawful currency of Switzerland, all references to "**£**", "**Pounds Sterling**" and "**GBP**" are to the lawful currency of the United Kingdom and references to a "**Member State**" are references to a Member State of the European Economic Area or European Union, as applicable.

Certain figures included in this Information Memorandum have been subject to rounding adjustments; accordingly, figures shown for the same category presented in different tables may vary slightly and figures shown as totals in certain tables may not be an arithmetic aggregation of the figures which precede them.

PROHIBITION OF SALES TO EEA RETAIL INVESTORS – If the Final Terms in respect of any Instruments includes a legend entitled "Prohibition of Sales to EEA Retail Investors", the Instruments 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 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 or superseded), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II. Consequently no key information document required by Regulation (EU) No 1286/2014 (the "**PRiIPs Regulation**") for offering or selling the Instruments or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Instruments or otherwise making them available to any retail investor in the EEA may be unlawful under the PRiIPs Regulation.

MiFID II PRODUCT GOVERNANCE/TARGET MARKET – The Final Terms in respect of any Instruments will include a legend entitled "MiFID II Product Governance" which will outline the target

market assessment in respect of the Instruments and which channels for distribution of the Instruments are appropriate. Any person subsequently offering, selling or recommending the Instruments (a "**distributor**") should take into consideration the target market assessment; however, a distributor subject to MiFID II is responsible for undertaking its own target market assessment in respect of the Instruments (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 Instruments is a manufacturer in respect of such Instruments, but otherwise 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.

BENCHMARKS REGULATION – Interest and/or other amounts payable under the Instruments may be calculated by reference to certain reference rates. Any such reference rate may constitute a benchmark for the purposes of Regulation (EU) No 2016/1011 (the "**Benchmarks Regulation**"). If any such reference rate does constitute such a benchmark, the Final Terms will indicate whether or not the benchmark is provided by an administrator included in the register of administrators and benchmarks established and maintained by the European Securities and Markets Authority ("**ESMA**") pursuant to Article 36 (*Register of administrators and benchmarks*) of the Benchmarks Regulation. Transitional provisions in the Benchmarks Regulation may have the result that the administrator of a particular benchmark is not required to appear in the register of administrators and benchmarks at the date of the Final Terms. The registration status of any administrator under the Benchmarks Regulation is a matter of public record and, save where required by applicable law, the Issuer does not intend to update the Final Terms to reflect any change in the registration status of the administrator.

PRODUCT CLASSIFICATION PURSUANT TO SECTION 309B OF THE SECURITIES AND FUTURES ACT (CHAPTER 289 OF SINGAPORE) – The applicable Final Terms in respect of any Instruments may include a legend entitled "Singapore Securities and Futures Act Product Classification" which will state the product classification of the Instruments pursuant to section 309B(1) of the Securities and Futures Act (Chapter 289 of Singapore) (the "**SFA**"). The Issuer will make a determination in relation to each issue about the classification of the Instruments being offered for purposes of section 309B(1)(a). Any such legend included on the applicable Final Terms will constitute notice to "relevant persons" for purposes of section 309B(1)(c) of the SFA.

IN CONNECTION WITH THE ISSUE OF ANY TRANCHE OF INSTRUMENTS UNDER THE PROGRAMME, THE DEALER OR DEALERS (IF ANY) NAMED AS THE STABILISING MANAGER(S) (OR PERSONS ACTING ON BEHALF OF ANY STABILISING MANAGER(S)) IN THE APPLICABLE FINAL TERMS IN RELATION TO THE RELEVANT INSTRUMENTS MAY OVER-ALLOT INSTRUMENTS OR EFFECT TRANSACTIONS WITH A VIEW TO SUPPORTING THE MARKET PRICE OF THE INSTRUMENTS AT A LEVEL HIGHER THAN THAT WHICH MIGHT OTHERWISE PREVAIL. HOWEVER, STABILISATION MAY NOT NECESSARILY OCCUR. ANY STABILISATION ACTION MAY BEGIN ON OR AFTER THE DATE ON WHICH ADEQUATE PUBLIC DISCLOSURE OF THE TERMS OF THE OFFER OF THE RELEVANT INSTRUMENTS IS MADE AND, IF BEGUN, MAY CEASE AT ANY TIME BUT IT MUST END NO LATER THAN THE EARLIER OF 30 DAYS AFTER THE ISSUE DATE OF THE RELEVANT TRANCHE INSTRUMENTS AND 60 DAYS AFTER THE DATE OF THE ALLOTMENT OF THE RELEVANT TRANCHE OF INSTRUMENTS. ANY STABILISATION ACTION OR OVER-ALLOTMENT MUST BE CONDUCTED BY THE STABILISING MANAGER(S) (OR PERSONS ACTING ON BEHALF OF THE STABILISING MANAGER(S)) IN ACCORDANCE WITH ALL APPLICABLE LAWS AND RULES.

DOCUMENTS INCORPORATED BY REFERENCE

The following documents shall be deemed to be incorporated in, and to form part of, this Information Memorandum:

- (i) the audited consolidated balance sheets of ABB Ltd and its subsidiaries (the "**Group**") as of December 31, 2018 and 2017, and the related consolidated income statement, statements of comprehensive income, cash flows and changes in stockholders' equity for each of the three years in the period ended December 31, 2018, and the related notes (including the auditors' reports thereon) as set out on pages 132 to 215 of the ABB Group Annual Report 2018. The Group's consolidated financial statements as of and for the year ended December 31, 2018, were audited by KPMG AG. The Group's consolidated financial statements as of December 31, 2017, and for each of the years ended December 31, 2017 and 2016, were audited by Ernst & Young AG;
- (ii) the audited statutory financial statements of ABB Ltd, which comprise the balance sheet, income statement, cash flow statement and notes, for the year ended December 31, 2018 included in the ABB Group Annual Report for 2018; and
- (iii) the Annual Report on Form 20-F of ABB Ltd for the year ended December 31, 2018 filed by ABB Ltd to the U.S. Securities and Exchange Commission (the "**SEC**") which can be accessed via the internet at <http://www.sec.gov/edgar.shtml> or <http://new.abb.com/media/group-reports>.

The following table sets out the relevant page numbers of some of the financial information in the audited consolidated financial statements of ABB Ltd in respect of the financial years ended December 31, 2018 and December 31, 2017.

	Consolidated Financial Statements of 2018 and 2017 (as set out in the ABB Group Annual Report 2018)
Consolidated Income Statements.....	143
Consolidated Balance Sheets.....	145
Consolidated Statements of Cash Flows.....	146
Report of the Statutory Auditor on the Audit of the Consolidated Financial Statements (2018).....	134
Report of the Independent Registered Public Accounting Firm (2017).....	142
Notes to the Consolidated Financial Statements including significant accounting policies	150-215

The following table sets out the relevant page numbers of some of the financial information in the audited statutory financial statements of ABB Ltd in respect of the financial year ended December 31, 2018.

	Statutory Financial Statements of 2018 (as set out in the ABB Group Annual Report 2018)
Income Statement.....	221
Balance Sheet.....	221
Report of the Statutory Auditor on the Statutory Financial Statements.....	233
Notes to the Statutory Financial Statements.....	223-231

The Guarantor will, at the specified offices of the Fiscal Agent and the Swiss Paying Agent, provide, free of charge, upon the oral or written request therefor, a copy of this Information Memorandum, and supplements or amendments to the Information Memorandum and any or all of the documents incorporated by reference herein and therein. Written or oral requests for such documents should be directed to the specified office of any Paying Agent. The reports filed by ABB Ltd with the SEC may also be inspected and copied at prescribed rates at the SEC's public reference room at 450 Fifth Street N.W., Washington, D.C. 20549 or accessed via the internet at <http://www.sec.gov>. Documents incorporated by reference will also be published on the ABB website at <http://new.abb.com/media/group-reports>. Any information contained in any of the documents specified above which is not incorporated by reference in this Information Memorandum is either not relevant to investors or is covered elsewhere in this Information Memorandum.

SUMMARY OF THE PROGRAMME

The following is a brief summary only and should be read, in relation to any Instruments, in conjunction with the relevant Final Terms and, to the extent applicable, the Terms and Conditions of the Instruments set out on pages 36 to 65 hereof. Words and expressions defined in the "Terms and Conditions of the Instruments" below or elsewhere in this Information Memorandum have the same meanings in this summary.

"Issuers":	ABB Finance B.V. ABB Finance (USA) Inc.
"Guarantor":	ABB Ltd.
"Guarantee":	Holders of the Instruments issued under the Programme have the benefit of a Guarantee entered into by ABB Ltd effective as of April 1, 2019.
"Status of Instruments":	The Instruments will constitute (subject to Condition 4.01 (<i>Negative Pledge</i>)) unsecured and unsubordinated obligations of the relevant Issuer and will at all times rank <i>pari passu</i> in right of payment and without any preference among themselves.
"Status of Guarantee":	The guarantee of the Instruments will constitute direct, unsecured and unsubordinated obligations of the Guarantor and will at all times rank <i>pari passu</i> with all other present and future direct, unsecured and unsubordinated obligations of the Guarantor, save for such obligations as may be mandatorily preferred by law.
"Risk Factors":	Investing in Instruments under the Programme involves certain risks. The principal risk factors that may affect the ability of the relevant Issuer and the Guarantor to fulfil their obligations under the Instruments issued under the Programme are discussed under " <i>Risk Factors</i> " below.
"Arranger":	BNP Paribas
"Dealers":	Barclays Bank Ireland PLC Barclays Bank PLC BNP Paribas BofA Securities Europe SA Citigroup Global Markets Europe AG Citigroup Global Markets Limited Crédit Agricole Corporate and Investment Bank Credit Suisse Securities (Europe) Limited Deutsche Bank AG, London Branch Goldman Sachs International HSBC Bank plc ING Bank N.V. J.P. Morgan Securities plc Merrill Lynch International Morgan Stanley & Co. International plc Société Générale UBS Limited UniCredit Bank AG and any other dealer appointed from time to time by the relevant Issuer and the Guarantor. Each of the Issuers may be appointed as a Dealer in respect of a particular Tranche (as defined below) of Instruments.
"Fiscal Agent":	BNP Paribas Securities Services, Luxembourg Branch.

"Luxembourg Listing Agent":	BNP Paribas Securities Services, Luxembourg Branch.
"Swiss Listing Agent":	The recognised representative according to article 43 of the listing rules of SIX Swiss Exchange as specified in the relevant Final Terms.
"Swiss Paying Agent":	BNP Paribas Securities Services, Paris, Succursale de Zurich or any other Swiss paying agent named in any Final Terms
"Programme Amount":	The aggregate principal amount of Instruments which may be issued under the Programme is U.S.\$8,000,000,000 (" Programme Limit ") (or, in any case, its approximate equivalent in any other currency at the date of the agreement to issue any Tranche of Instruments), as outstanding at any time. The Programme Limit may be increased from time to time, subject to compliance with the relevant provisions of the Dealership Agreement as defined under " <i>Subscription and Sale</i> ".
"Final Terms" or "Drawdown Information Memorandum":	Instruments issued under the Programme may be issued either (1) pursuant to this Information Memorandum and associated Final Terms or (2) pursuant to a Drawdown Information Memorandum. The terms and conditions applicable to any particular Tranche of Instruments will be the Conditions as supplemented, amended and/or replaced to the extent described in the relevant Final Terms or, as the case may be the relevant Drawdown Information Memorandum.
"Issuance in Series":	Instruments will be issued in series (each a " Series "). Each Series may comprise one or more tranches (" Tranches " and each a " Tranche ") issued on different issue dates. The Instruments of each Series will all be subject to identical terms, whether as to currency, interest, maturity or otherwise, or terms which are identical except that the issue date, the first payment of interest and/or the denomination thereof may be different and save that a Series may comprise Instruments in bearer form and Instruments in registered form. The Instruments of each Tranche will all be subject to identical terms in all respects save that a Tranche may comprise Instruments in bearer form and Instruments in registered form.
"Form of Instruments":	<p>Instruments issued by ABB Netherlands may be issued in bearer form or in registered form.</p> <p>Instruments issued by ABB USA may only be issued in registered form, except in the case of SIS Instruments (as defined below) in which case such Instruments shall be issued under procedures which result in the issuance of such Instruments as being in registered form for US tax purposes.</p> <p>Each Tranche of Bearer Instruments will initially be in the form of either a Temporary Global Instrument or a Permanent Global Instrument, in each case as specified in the relevant Final Terms. Each global Instrument which is not intended to be issued in new global note form (a "Classic Global Note" or "CGN"), as specified in the relevant Final Terms, will be deposited on or around the relevant issue date with a depositary or a common depositary for Euroclear Bank SA/NV ("Euroclear") and/or Clearstream Banking, S.A., Luxembourg ("Clearstream, Luxembourg") and/or any other relevant clearing system and each global Instrument which is intended to be issued in new global note form (a "New Global Note" or "NGN"), as specified in the relevant Final Terms, will be deposited on or around the relevant issue date with a common safekeeper for Euroclear and/or Clearstream, Luxembourg. Such Temporary Global Instrument will be exchangeable for a Permanent Global Instrument,</p>

or, if so specified in the relevant Final Terms, for Definitive Instruments. If the TEFRA D Rules are specified in the relevant Final Terms as applicable, certification as to non-U.S. beneficial ownership will be a condition precedent to any exchange of an interest in a Temporary Global Instrument or receipt of any payment of interest in respect of a Temporary Global Instrument. Each Permanent Global Instrument will be exchangeable for Definitive Instruments in accordance with its terms. Definitive Instruments will, if interest bearing, have Coupons attached and, if appropriate, a Talon for further Coupons.

Each Tranche of Registered Instruments will be in the form of either Individual Certificates or a global Instrument in registered form, in each case as specified in the relevant Final Terms.

Each Tranche of Instruments represented by a Global Registered Instrument will either be: (a) in the case of an Instrument which is not to be held under the new safekeeping structure ("**New Safekeeping Structure**" or "**NSS**"), registered in the name of a common depository (or its nominee) for Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system and the relevant Global Registered Instrument will be deposited on or about the issue date with the common depository; or (b) in the case of an Instrument to be held under the New Safekeeping Structure, be registered in the name of a common safekeeper (or its nominee) for Euroclear and/or Clearstream, Luxembourg and the relevant Global Registered Instrument will be deposited on or about the issue date with the common safekeeper for Euroclear and/or Clearstream, Luxembourg. Each Global Registered Instrument will be exchangeable for Individual Certificates in accordance with its terms.

Instruments that are intended to be deposited with SIX SIS Ltd ("**SIX SIS**") in Olten, Switzerland ("**SIS Instruments**") will be represented exclusively by a Permanent Global Instrument (without coupons attached) which shall be deposited with SIX SIS as part of an arrangement that results in the issuance of a debt obligation in registered form for US tax purposes. Neither the relevant Issuer nor any Holder of SIS Instruments will at any time have the right to effect or demand the conversion of the Permanent Global Instrument representing such SIS Instruments into, or the delivery of, Instruments in definitive or uncertificated form. If the Swiss Paying Agent deems (i) the printing of Definitive Instruments and/or Coupons to be necessary or useful or (ii) the presentation of Definitive Instruments and Coupons to be required by Swiss or foreign laws in connection with the enforcement of the rights of the holders, the Swiss Paying Agent will provide for such printing provided, however, that in the case of Instruments issued by ABB USA, Definitive Instruments may be issued only in registered form. The relevant Issuer has irrevocably authorised the Swiss Paying Agent to provide for such printing on its behalf. The Definitive Instruments will be printed and issued to the holders free of charge in exchange for their interests in the respective global instrument.

"Currencies":

Instruments may be denominated in any currency or currencies, subject to compliance with all applicable legal or regulatory requirements. Payments in respect of Instruments may, subject to compliance as aforesaid, be made in and/or linked to, any currency or currencies other than the currency in which such Instruments are denominated in accordance with the relevant Final Terms.

"Negative Pledge":	The Instruments will have the benefit of a negative pledge, as more fully described in <i>"Terms and Conditions of the Instruments—Negative Pledge"</i> .
"Cross Default":	The Instruments will have the benefit of a cross default provision, as more fully described in <i>"Terms and Conditions of the Instruments—Events of Default—Cross Default"</i> .
"Issue Price":	Instruments may be issued at any price whether at par or at a discount or premium to par, and either on a fully or partly paid basis, as specified in the relevant Final Terms. The price and amount of Instruments to be issued under the Programme will be determined by the relevant Issuer, the Guarantor and the relevant Dealer(s) at the time of issue in accordance with prevailing market conditions.
"Maturities":	<p>Any maturity, subject, in relation to specific currencies, to compliance with all applicable legal and/or regulatory requirements.</p> <p>Any Instruments which have a maturity of less than one year from their Issue Date and in respect of which (i) the issue proceeds are received by the relevant Issuer in the United Kingdom or (ii) the activity of issuing the Instruments is carried on from an establishment maintained by the relevant Issuer in the United Kingdom must (a) have a minimum redemption value of £100,000 (or its equivalent in other currencies) and be issued only to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or 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 or (b) be issued in other circumstances which do not constitute a contravention of Section 19 of the Financial Services and Markets Act 2000 (the "FSMA") by the relevant Issuer.</p>
"Redemption":	Instruments may be redeemable at par or at such other Redemption Amount (detailed in a formula or otherwise) as may be specified in the relevant Final Terms.
"Early Redemption":	Early redemption will be permitted for taxation reasons as mentioned in <i>"Terms and Conditions of the Instruments—Redemption and Purchase—Early Redemption for Taxation Reasons"</i> , and will otherwise be permitted only to the extent specified in the relevant Final Terms.
"Interest":	Instruments may be interest bearing or non-interest bearing.
"Denominations":	No Instruments may be issued under the Programme which have a minimum denomination of less than Euro 100,000 (or its equivalent in other currencies). Subject thereto, Instruments will be issued in such denominations as may be specified in the relevant Final Terms, subject to compliance with all applicable legal and/or regulatory requirements as of the date of issuance.
"Taxation":	The relevant Issuer and the Guarantor will make payments without withholding or deduction for, or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature imposed or levied by or on behalf of their jurisdictions of incorporation or any political subdivision thereof or any authority therein or thereof having power to tax (collectively, " Taxes "), unless the withholding or deduction of the Taxes is required by law. In that event, subject to certain exceptions and limitations, the relevant Issuer or (as the case may be) the Guarantor will pay such additional amounts

as may be necessary in order that net amounts received by the holders of Instruments or Coupons after such withholding or deduction shall equal the respective amounts which would have been received in respect of such Instruments in the absence of such withholding or deduction.

"Listing":

Application has been made to the Luxembourg Stock Exchange for Instruments to be admitted to trading on the Luxembourg Stock Exchange's Euro MTF Market and to be listed on the Official List of the Luxembourg Stock Exchange. The Programme has been approved by SIX Swiss Exchange as an "issuance programme" for the listing of bonds in accordance with the listing rules of SIX Swiss Exchange. Application may be made to trade and list Instruments on SIX Swiss Exchange or on such other stock exchange as may be agreed between the relevant Issuer and the relevant Dealer or Instruments may be unlisted, as specified in the relevant Final Terms.

"Terms and Conditions":

Final Terms will be prepared in respect of each Tranche of Instruments. The terms and conditions applicable to each Tranche will be as set out on pages 36 to 65 herein as supplemented, modified or replaced by the relevant Final Terms.

"Enforcement of Instruments in Global Form":

In the case of Instruments in global form issued by ABB Netherlands, individual investors will have the benefit of a Deed of Covenant executed by ABB Netherlands dated April 1, 2019 (the "**ABB Netherlands Deed of Covenant**"), a copy of which will be available for inspection at the specified office of ABB Ltd in Zurich and the Fiscal Agent in Luxembourg.

In the case of Instruments in global form issued by ABB USA, individual investors will have the benefit of a Deed of Covenant executed by ABB USA dated April 1, 2019 (the "**ABB USA Deed of Covenant**" and, together with the ABB Netherlands Deed of Covenant, the "**Deeds of Covenant**" and each a "**relevant Deed of Covenant**"), a copy of which will be available for inspection at the specified office of ABB Ltd in Zurich and the Fiscal Agent in Luxembourg. References herein to the "**relevant Deed of Covenant**" shall be references to the Deed of Covenant of the relevant Issuer.

"Governing Law":

The Instruments, the Fiscal Agency Agreement and the Deeds of Covenant entered into in connection with the Instruments and any non-contractual obligations arising out of or in connection with them will be governed by, and construed in accordance with, English law. The Guarantee will be governed by and construed in accordance with the laws of Switzerland.

"Clearing Systems":

Euroclear, Clearstream, Luxembourg, SIX SIS and/or any other clearing system as may be specified in the relevant Final Terms and, in the case of Instruments listed on SIX Swiss Exchange, which is approved by SIX Swiss Exchange.

"Selling Restrictions":

For a description of certain restrictions on offers, sales and deliveries of Instruments and on the distribution of offering material under the laws of the United States of America, The Netherlands, the United Kingdom, Japan and Singapore, see under "*Subscription and Sale*". Further restrictions may be required in connection with any particular Tranche of Instruments. Any such further restrictions will be specified in the relevant Final Terms.

RISK FACTORS

You should carefully consider the risk factors set forth below as well as the other information contained in this Information Memorandum and the information incorporated by reference herein before making a decision to purchase the Instruments issued under the Programme.

The risks described below are the risks that we currently believe may exist. Additional risks of which we are unaware or that we currently deem to be immaterial may also materially and adversely affect our financial condition, results of business operations, liquidity and cash flows.

Any of the following risks could materially adversely affect our business, financial condition, results of operations, liquidity or cash flows. In such case, you may lose all or part of your original investment.

The Issuers, ABB Netherlands and ABB USA, are indirect wholly-owned subsidiaries of ABB Ltd and members of the worldwide group of related companies of ABB Ltd. By virtue of their relationship with ABB Ltd, each of the risks below that may affect ABB Ltd and its consolidated subsidiaries taken as a whole may also affect either or both of the Issuers.

ABB Ltd is the ultimate parent company of the ABB Group. Accordingly, substantially all of the assets of ABB Ltd are comprised of its direct and indirect shareholdings in its subsidiaries. ABB Ltd has provided a guarantee in connection with the Instruments to be issued by ABB Netherlands and ABB USA under the Programme, which shall be the sole credit support in connection with the Instruments. The ability of ABB Ltd to satisfy any payment obligations under the Guarantee will be dependent upon dividend payments, intercompany loans and/or other payments received by ABB Ltd from other members of the ABB Group, and such payment obligations under the Guarantee may be structurally subordinated to any payment obligations owed to creditors of ABB Ltd's subsidiaries.

Risks Related to Our Business

Our business is exposed to risks associated with the volatile global economic environment and political conditions.

Adverse changes in economic or political conditions as well as concerns about global trade, global health pandemics, developments in energy prices, and terrorist activities, could have a material adverse effect on our business, financial condition, results of operations and liquidity and may adversely impact the demand for our products and services. These and other factors may prevent our customers and suppliers from obtaining the financing required to pursue their business activities as planned, which may force them to modify, delay or cancel plans to purchase or supply our products or services. In addition, if our customers do not generate sufficient revenue, or fail to timely obtain access to the capital markets, they may not be able to pay, or may delay payment of, the amounts they owe us. Customers with liquidity issues may lead to additional bad debt expense for us, which may adversely affect our results of operations and cash flows. We are also subject to the risk that the counterparties to our credit agreements and hedging transactions may go bankrupt if they suffer catastrophic demand on their liquidity that prevents them from fulfilling their contractual obligations to us.

Our business environment is influenced also by numerous other economic or political uncertainties which may affect the global economy and the international capital markets. In periods of slow economic growth or decline, our customers are more likely to buy less of our products and services, and as a result we are more likely to experience decreased revenues. Our divisions are affected by the level of investments in the markets that we serve, principally utilities, industry and transport & infrastructure. At various times during the last several years, we also have experienced, and may experience in the future, gross margin declines in certain businesses, reflecting the effect of factors such as competitive pricing pressures, inventory write-downs, charges associated with the cancellation of planned expansion, increases in pension and postretirement benefit expenses, and increases in component and manufacturing costs resulting from higher labor and material costs borne by our manufacturers and suppliers that, as a result of competitive pricing pressures or other factors, we are unable to pass on to our customers. Economic downturns also may lead to restructuring actions and associated expenses. Uncertainty about future economic conditions makes it difficult for us to forecast operating results and to make decisions about future investments.

In addition, we are subject to the risks that our business operations in or with certain countries may be adversely affected by trade tariffs, trade or economic sanctions or other restrictions imposed on these

countries. These could lead to increased costs for us or for our customers or limit our ability to do business in or with certain countries. In addition, actual or potential investors that object to certain of these business operations may adversely affect the price of our shares by disposing or deciding not to purchase our shares. These countries may from time to time include countries that are identified by the United States as state sponsors of terrorism. If any countries where or with whom we do business are subject to such sanctions or restrictions, our business, consolidated operating results, financial condition and the trading price of our shares may be adversely affected. In 2018, our total revenues from business with countries identified by the U.S. government as state sponsors of terrorism represented a very small percentage of our total revenues. Based on the amount of revenues and other relevant quantitative and qualitative factors, we have determined that our business in 2018 with countries identified by the U.S. government as state sponsors of terrorism was not material.

Illegal behavior by any of our employees or agents could have a material adverse impact on our consolidated operating results, cash flows, and financial position as well as on our reputation and our ability to do business.

Certain of our employees or agents have taken, and may in the future take, actions that violate or are alleged to violate the U.S. Foreign Corrupt Practices Act of 1977 (FCPA), legislation promulgated pursuant to the 1997 Organisation for Economic Co-operation and Development (OECD) Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, applicable antitrust laws and other applicable laws or regulations. For more information regarding investigations of past actions taken by certain of our employees, see “Item 8. Financial Information—Legal Proceedings” of our Form 20-F for the year ended December 31, 2018. Such actions have resulted, and in the future could result, in governmental investigations, enforcement actions, civil and criminal penalties, including monetary penalties and other sanctions, and civil litigation. It is possible that any governmental investigation or enforcement action arising from such matters could conclude that a violation of applicable law has occurred, and the consequences of any such investigation or enforcement action may have a material adverse impact on our consolidated operating results, cash flows and financial position. In addition, such actions, whether actual or alleged, could damage our reputation and ability to do business.

Further, detecting, investigating and resolving such actions could be expensive and could consume significant time and attention of our senior management. While we are committed to conducting business in a legal and ethical manner, our internal control systems at times have not been, and in the future may not be, completely effective to prevent and detect such improper activities by our employees and agents.

Our operations in emerging markets expose us to risks associated with conditions in those markets.

A significant amount of our operations is conducted in the emerging markets in South America, Asia, and the Middle East and Africa. In 2018, approximately 42 percent of our consolidated revenues were generated from these emerging markets. Operations in emerging markets can present risks that are not encountered in countries with well-established economic and political systems, including:

- economic instability, which could make it difficult for us to anticipate future business conditions in these markets, cause delays in the placement of orders for projects that we have been awarded and subject us to volatile geographic markets,
- political or social instability, which could make our customers less willing to make cross-border investments in such regions and could complicate our dealings with governments regarding permits or other regulatory matters, local businesses and workforces,
- boycotts and embargoes that may be imposed by the international community on countries in which we do business or where we seek to do business could adversely affect the ability of our operations in those countries to obtain the materials necessary to fulfill contracts and our ability to pursue business or establish operations in those countries,
- foreign state takeovers of our and our customers’ facilities,
- significant fluctuations in interest rates and currency exchange rates,
- the imposition of unexpected taxes or other payments on our revenues in these markets,

- our inability to obtain financing and/or insurance coverage from export credit agencies, and
- the introduction of exchange controls and other restrictions by foreign governments.

Additionally, political and social instability resulting from increased violence in certain countries in which we do business has raised concerns about the safety of our personnel. These concerns may hinder our ability to send personnel abroad and to hire and retain local personnel. Such concerns may require us to increase security for personnel traveling to and working in affected countries or to restrict or wind-down operations in such countries, which may negatively impact us and result in higher costs and inefficiencies.

Consequently, our exposure to the conditions in or affecting emerging markets may adversely affect our business, financial condition, results of operations and liquidity.

Undertaking long-term, technically complex projects or projects that are dependent upon factors not wholly within our control could adversely affect our profitability and future prospects.

We derive a portion of our revenues from long-term, fixed price and turnkey projects and from other technically complex projects that can take many months, or even years, to complete. Such contracts typically involve substantial risks, including the possibility that we may underbid and consequently have no means of recouping the actual costs incurred, and the assumption of a large portion of the risks associated with completing related projects, including the warranty obligations. Some projects involve technological risks, including in cases where we are required to modify our existing products and systems to satisfy the technical requirements of a project, integrate our products and systems into the existing infrastructure and systems at the installation site, or undertake ancillary activities such as civil works at the installation site. Our revenue, cost and gross profit realized on such contracts can vary, sometimes substantially, from our original projections for numerous reasons, including:

- unanticipated issues with the scope of supply, including modification or integration of supplied products and systems that may require us to incur incremental expenses to remedy such issues,
- the quality and efficacy of our products and services cannot be tested and proven in all situations and environments and may lead to premature failure or unplanned degradation of products,
- changes in the cost of components, materials or labor,
- difficulties in obtaining required governmental permits or approvals,
- delays caused by customers, force majeure or local weather and geological conditions, including natural disasters,
- shortages of construction equipment,
- changes in law or government policy,
- supply bottlenecks, especially of key components,
- suppliers', subcontractors' or consortium partners' failure to perform or delay in performance,
- diversion of management focus due to responding to unforeseen issues, and
- loss of follow-on work.

These risks are exacerbated if a project is delayed because the circumstances upon which we originally bid and quoted a price may have changed in a manner that increases our costs or other liabilities relating to the project. In addition, we sometimes bear the risk of delays caused by unexpected conditions or events. Our project contracts often subject us to penalties or damages if we cannot complete a project in accordance with the contract schedule. In certain cases, we may be required to pay back to a customer all or a portion

of the contract price as well as potential damages (which may significantly exceed the contract price), if we fail to meet contractual obligations.

We operate in very competitive markets and could be adversely affected if we fail to keep pace with technological changes.

We operate in very competitive markets where we regularly need to innovate and develop products, systems, services and solutions that address the business challenges and needs of our customers. The nature of these challenges varies across the geographic markets and product areas that we serve. The markets for our products and services are characterized by evolving industry standards (particularly for our automation technology products and systems), which may require us to modify our products and systems. When power transmission and distribution providers are privatized, their need typically increases for timely power product and solution innovations that improve efficiency and allow them to compete in a deregulated environment. Additionally, the continual development of advanced technologies for new products and product enhancements is an important way in which we maintain acceptable pricing levels. If we fail to keep pace with technological changes in the industrial sectors that we serve, we may experience price erosion and lower margins.

Our primary competitors are sophisticated companies with significant resources that may develop products and services that are superior to our products and services or may adapt more quickly than we do to new technologies, industry changes or evolving customer requirements. We are also facing increased competition from low cost competitors in emerging markets, which may give rise to increased pressure to reduce our prices. Our failure to anticipate or respond quickly to technological developments or customer requirements could adversely affect our business, results of operations, financial condition and liquidity.

Our multi-national operations expose us to the risk of fluctuations in currency exchange rates.

Currency exchange rate fluctuations have had, and could continue to have, a material impact on our operating results, the comparability of our results between periods, the value of assets or liabilities as recorded on our Consolidated Balance Sheet and the price of our securities. Volatility in exchange rates makes it harder to predict exchange rates and perform accurate financial planning. Changes in exchange rates can unpredictably and adversely affect our consolidated operating results and could result in exchange losses.

Currency Translation Risk. The results of operations and financial position of most of our non-U.S. companies are initially recorded in the currency of the country in which each such company resides, which we call “local currency”. That financial information is then translated into U.S. dollars at the applicable exchange rates for inclusion in our Consolidated Financial Statements. The exchange rates between local currencies and the U.S. dollar can fluctuate substantially, which could have a significant translation effect on our reported consolidated results of operations and financial position.

Increases and decreases in the value of the U.S. dollar versus local currencies will affect the reported value of our local currency assets, liabilities, revenues and costs in our Consolidated Financial Statements, even if the value of these items has not changed in local currency terms. These translations could significantly and adversely affect our results of operations and financial position from period to period.

Currency Transaction Risk. Currency risk exposure also affects our operations when our sales are denominated in currencies that are different from those in which our manufacturing or sourcing costs are incurred. In this case, if, after the parties agree on a price, the value of the currency in which the price is to be paid were to weaken relative to the currency in which we incur manufacturing or sourcing costs, there would be a negative impact on the profit margin for any such transaction. This transaction risk may exist regardless of whether there is also a currency translation risk as described above.

Currency exchange rate fluctuations in those currencies in which we incur our principal manufacturing expenses or sourcing costs may adversely affect our ability to compete with companies whose costs are incurred in other currencies. If our principal expense currencies appreciate in value against such other currencies, our competitive position may be weakened.

Our hedging activities may not protect us against the consequences of significant fluctuations in exchange rates, interest rates or commodity prices on our earnings and cash flows.

Our policy is to hedge material currency exposures by entering into offsetting transactions with third-party financial institutions. Given the effective horizons of our risk management activities and the anticipatory nature of the exposures intended to be hedged, there can be no assurance that our currency hedging activities will fully offset the adverse financial impact resulting from unfavorable movements in foreign exchange rates. In addition, the timing of the accounting for recognition of gains and losses related to a hedging instrument may not coincide with the timing of gains and losses related to the underlying economic exposures.

As a resource-intensive operation, we are exposed to a variety of market and asset risks, including the effects of changes in commodity prices and interest rates. We monitor and manage these exposures as an integral part of our overall risk management program, which recognizes the unpredictability of markets and seeks to reduce the potentially adverse effects on our business. As part of our effort to manage these exposures, we may enter into commodity price and interest rate hedging arrangements. Nevertheless, changes in commodity prices and interest rates cannot always be predicted or hedged.

If we are unable to successfully manage the risk of changes in exchange rates, interest rates or commodity prices or if our hedging counterparties are unable to perform their obligations under our hedging agreements with them, then changes in these rates and prices could have an adverse effect on our financial condition and results of operations.

Increases in costs or limitation of supplies of raw materials may adversely affect our financial performance.

We purchase large amounts of commodity-based raw materials, including steel, copper, aluminum and oil. Prevailing prices for such commodities are subject to fluctuations due to changes in supply and demand and a variety of additional factors beyond our control, such as global political and economic conditions. Historically, prices for some of these raw materials have been volatile and unpredictable, and such volatility is expected to continue. Therefore, commodity price changes may result in unexpected increases in raw material costs, and we may be unable to increase our prices to offset these increased costs without suffering reduced volumes, revenues or operating income. We do not fully hedge against changes in commodity prices and our hedging procedures may not work as planned.

We depend on third parties to supply raw materials and other components and may not be able to obtain sufficient quantities of these materials and components, which could limit our ability to manufacture products on a timely basis and could harm our profitability. For some raw materials and components, we rely on a single supplier or a small number of suppliers. If one of these suppliers were unable to provide us with a raw material or component we need, our ability to manufacture some of our products could be adversely affected until we are able to establish a new supply arrangement. We may be unable to find a sufficient alternative supply channel in a reasonable time period or on commercially reasonable terms, if at all. If our suppliers are unable to deliver sufficient quantities of materials on a timely basis, the manufacture and sale of our products may be disrupted, we may be required to assume liability under our agreements with customers and our sales and profitability could be materially adversely affected.

An inability to protect our intellectual property rights could adversely affect our business.

Our intellectual property rights are fundamental to all of our businesses. We generate, maintain, utilize and enforce a substantial portfolio of trademarks, trade dress, patents and other intellectual property rights globally. Intellectual property protection is subject to applicable laws in various local jurisdictions where interpretations and protections vary or can be unpredictable and costly to enforce. We use our intellectual property rights to protect the goodwill of our products, promote our product recognition, protect our proprietary technology and development activities, enhance our competitiveness and otherwise support our business goals and objectives. However, there can be no assurance that the steps we take to obtain, maintain and protect our intellectual property rights will be adequate. Our intellectual property rights may fail to provide us with significant competitive advantages, particularly in foreign jurisdictions that do not have, or do not enforce, strong intellectual property rights. The weakening of protection of our trademarks, trade dress, patents and other intellectual property rights could adversely affect our business.

Industry consolidation could result in more powerful competitors and fewer customers.

Competitors in the industries in which we operate are consolidating. In particular, the automation industry is undergoing consolidation that is reducing the number but increasing the size of companies that compete

with us. As our competitors consolidate, they likely will increase their market share, gain economies of scale that enhance their ability to compete with us and/or acquire additional products and technologies that could displace our product offerings.

Our customer base also is undergoing consolidation. Consolidation within our customers' industries (such as the marine and cruise industry, the automotive, aluminum, steel, pulp and paper and pharmaceutical industries and the oil and gas industry) could affect our customers and their relationships with us. If one of our competitors' customers acquires any of our customers, we may lose that business. Additionally, as our customers become larger and more concentrated, they could exert pricing pressure on all suppliers, including us. For example, in an industry such as power transmission, which historically has consisted of large and concentrated customers such as utilities, price competition has become a factor in determining which products and services will be selected by a customer. If we were to lose market share or customers or face pricing pressure due to consolidation of our customers, our results of operations and financial condition could be adversely affected.

We are subject to environmental laws and regulations in the countries in which we operate. We incur costs to comply with such regulations, and our ongoing operations may expose us to environmental liabilities.

Our operations are subject to U.S., European and other laws and regulations governing the discharge of materials into the environment or otherwise relating to environmental protection. Our manufacturing facilities use and produce paint residues, solvents, metals, oils and related residues. We use petroleum-based insulation in transformers, polyvinylchloride (PVC) resin to manufacture PVC cable and chloroparaffin as a flame retardant. We have manufactured and sold, and we are using in some of our factories, certain types of transformers and capacitors containing polychlorinated biphenyls (PCBs). These are considered to be hazardous substances in many jurisdictions in which we operate. We may be subject to substantial liabilities for environmental contamination arising from the use of such substances. All of our manufacturing operations are subject to ongoing compliance costs in respect of environmental matters and the associated capital expenditure requirements.

In addition, we may be subject to significant fines and penalties if we do not comply with environmental laws and regulations, including those referred to above. Some environmental laws provide for joint and several or strict liability for remediation of releases of hazardous substances, which could result in us incurring a liability for environmental damage without regard to our negligence or fault. Such laws and regulations could expose us to liability arising out of the conduct of operations or conditions caused by others, or for our acts which were in compliance with all applicable laws at the time the acts were performed. Additionally, we may be subject to claims alleging personal injury or property damage as a result of alleged exposure to hazardous substances. Changes in the environmental laws and regulations, or claims for damages to persons, property, natural resources or the environment, could result in substantial costs and liabilities to us.

We may be the subject of product liability claims.

We may be required to pay for losses or injuries purportedly caused by the design, manufacture or operation of our products and systems. Additionally, we may be subject to product liability claims for the improper installation of products and systems designed and manufactured by others.

Product liability claims brought against us may be based in tort or in contract, and typically involve claims seeking compensation for personal injury or property damage. Claims brought by commercial businesses are often made also for financial losses arising from interruption to operations. Depending on the nature and application of many of the products we manufacture, a defect or alleged defect in one of these products could have serious consequences. For example:

- If the products produced by our power technology divisions are defective, there is a risk of fire, explosions and power surges, and significant damage to electricity generating, transmission and distribution facilities as well as electrical shock causing injury or death.
- If the products produced by our automation technology divisions are defective, our customers could suffer significant damage to facilities and equipment that rely on these products and systems to properly monitor and control their manufacturing processes.

Additionally, people could be exposed to electrical shock and/or other harm causing injury or death.

- If any of our products contain hazardous substances, then there is a risk that such products or substances could cause injury or death.
- If any of our protective products were to fail to function properly, there is a risk that such failure could cause injury or death.

If we were to incur a very large product liability claim, our insurance protection might not be adequate or sufficient to cover such a claim in terms of paying any awards or settlements, and/or paying for our defense costs. Further, some claims may be outside the scope of our insurance coverage. If a litigant were successful against us, a lack or insufficiency of insurance coverage could result in an adverse effect on our business, financial condition, results of operations and liquidity. Additionally, a well-publicized actual or perceived issue relating to us or our products could adversely affect our market reputation, which could result in a decline in demand for our products and reduce the trading price of our shares. Furthermore, if we were required or we otherwise determined to make a product recall, the costs could be significant.

The uncertainties surrounding the United Kingdom's future relationship with the European Union may have a negative effect on global economic conditions, financial markets and our business.

The United Kingdom has formally initiated the process to withdraw from the European Union and continues to negotiate the terms of such departure. This has had and may continue to have a material effect on global economic conditions and the stability of global financial markets. Lack of clarity about future United Kingdom laws and regulations, potentially divergent national laws, the possibility of increased regulatory complexities, or future developments in the European Union could depress economic activity, reduce demand for our products and services, restrict our access to capital, and diminish or eliminate barrier-free access between the United Kingdom and other European Union member states or among the European economic area overall. Furthermore, discussions between the United Kingdom and the European Union may influence discussions on open trade and political matters between Switzerland and the European Union. Any of these factors could have an adverse effect on our business, financial condition and results of operations.

We may encounter difficulty in managing our business due to the global nature of our operations.

We operate in approximately 100 countries around the world and, as of December 31, 2018, employed about 147,000 people, of which approximately 47 percent were located in the Europe region, approximately 29 percent in the Asia, Middle East and Africa region and approximately 24 percent in the Americas region. To manage our day-to-day operations, we must deal with cultural and language barriers and assimilate different business practices. Due to our global nature, we deal with a range of legal and regulatory systems some of which are less developed and less well-enforced than others. This may impact our ability to protect our contractual, intellectual property and other legal rights. In addition, we are required to create compensation programs, employment policies and other administrative programs that comply with the laws of multiple countries. We also must communicate, monitor and uphold group-wide standards and directives across our global network, including in relation to our suppliers, subcontractors and other relevant stakeholders. Our failure to manage successfully our geographically diverse operations could impair our ability to react quickly to changing business and market conditions and to enforce compliance with group-wide standards and procedures.

If we are unable to obtain performance and other guarantees from financial institutions, we may be prevented from bidding on, or obtaining, some contracts, or our costs with respect to such contracts could be higher.

In the normal course of our business and in accordance with industry practice, we provide a number of guarantees including bid bonds, advance payment bonds or guarantees, performance bonds or guarantees and warranty bonds or guarantees, which guarantee our own performance. These guarantees may include guarantees that a project will be completed on time or that a project or particular equipment will achieve defined other performance criteria. If we fail to satisfy any defined criteria, we may be required to make payments in cash or in kind. Performance guarantees frequently are requested in relation to large projects in our power and automation businesses.

Some customers require that performance guarantees be issued by a financial institution. In considering whether to issue a guarantee on our behalf, financial institutions consider our credit ratings. In addition, the global financial crisis has made it more difficult and expensive to obtain these guarantees. If, in the future, we cannot obtain such a guarantee from a financial institution on commercially reasonable terms or at all, we could be prevented from bidding on, or obtaining, some contracts, or our costs with respect to such contracts could be higher, which would reduce the profitability of the contracts. If we cannot obtain guarantees on commercially reasonable terms or at all from financial institutions in the future, there could be a material impact on our business, financial condition, results of operations or liquidity.

Examinations by tax authorities and changes in tax regulations could result in lower earnings and cash flows.

We operate in approximately 100 countries and therefore are subject to different tax regulations. Changes in tax law could result in higher tax expense and payments. Furthermore, this could materially impact our tax receivables and liabilities as well as deferred tax assets and deferred tax liabilities. In addition, the uncertainty of tax environment in some regions could limit our ability to enforce our rights. As a globally operating organization, we conduct business in countries subject to complex tax rules, which may be interpreted in different ways. Future interpretations or developments of tax regimes may affect our tax liability, return on investments and business operations. We are regularly examined by tax authorities in various jurisdictions. An adverse decision by a tax authority could cause a material adverse effect on our business, financial condition and results of operations.

The recent comprehensive tax reform in the United States could adversely affect our financial condition and results of operations.

The United States enacted comprehensive tax legislation that includes significant changes to the taxation of business entities. These changes include, among others, (i) a permanent reduction to the corporate income tax rate, (ii) a partial limitation on the deductibility of business interest expense, (iii) a shift of the U.S. taxation of multinational corporations from a tax on worldwide income to a territorial system (along with certain rules designed to prevent erosion of the U.S. income tax base) and (iv) a one-time tax on accumulated offshore earnings held in cash and illiquid assets, with the latter taxed at a lower rate. We are in the process of finalizing our assessment of the overall impact of the comprehensive tax legislation on our business and financial condition and it is possible that our profitability and our business may be adversely affected as a result of the U.S. tax law changes made by this legislation.

If we are unable to attract and retain qualified management and personnel then our business may be adversely affected.

Our success depends in part on our continued ability to hire, assimilate and retain highly qualified personnel, particularly our senior management team and key employees. Competition for highly qualified management and technical personnel remains intense in the industries and regions in which we operate. If we are unable to attract and retain members of our senior management team and key employees, including in connection with our ongoing organizational transformation, this could have an adverse effect on our business.

Our business strategy may include making strategic divestitures. There can be no assurance that any divestitures will provide business benefit.

Our strategy includes divesting certain non-core businesses. The divestiture of an existing business could reduce our future profits and operating cash flows and make our financial results more volatile. We may not find suitable purchasers for our non-core businesses and may continue to pay operating costs associated with these businesses. Failed attempts to divest non-core businesses may distract management's attention from other business activities, erode employee morale and customers' confidence, and harm our business. A divestiture could also cause a decline in the price of our shares and increased reliance on other elements of our core business operations. In December 2018 we announced the sale of our power grids business into a minority-owned joint venture. The transaction may not obtain all relevant approvals or may face other issues that could delay or prevent the closing of the transaction. If we do not successfully manage the risks associated with a divestiture, our business, financial condition, and results of operations could be adversely affected.

Anticipated benefits of existing and potential future mergers, acquisitions, joint ventures or strategic alliances may not be realized.

As part of our overall strategy, we may, from time to time, acquire businesses or interests in businesses, including noncontrolling interests, or form joint ventures or create strategic alliances. Whether we realize the anticipated benefits from these transactions, including our recent acquisition of General Electric Company's Industrial Solutions business, depends, in part, upon the integration between the businesses involved, the performance and development of the underlying products, capabilities or technologies, our correct assessment of assumed liabilities and the management of the operations in question. Accordingly, our financial results could be adversely affected by unanticipated performance and liability issues, transaction-related charges, amortization related to intangibles, charges for impairment of long-term assets and partner performance.

Increased information technology (IT) security threats and more sophisticated cyber-attacks could pose a risk to our systems, networks, products, solutions and services.

We have observed a global increase in IT security threats and more sophisticated cyber-attacks, both in general and against us, which pose a risk to the security of systems and networks and the confidentiality, availability and integrity of data stored and transmitted on those systems and networks. While we attempt to mitigate these risks through a number of measures, including employee training, comprehensive monitoring of our networks and systems, and maintenance of backup and protective systems such as firewalls and virus scanners, our systems, networks, products, solutions and services remain potentially vulnerable to attacks. Similarly, we have observed a continued increase in attacks generally against industrial control systems as well as against our customers and the systems we supplied to them, which pose a risk to the security of those systems and networks. Depending on their nature and scope, such attacks could potentially lead to the compromising of confidential information, improper use of our systems and networks or those we supplied to our customers, manipulation, corruption and destruction of data, defective products or services, production downtimes and supply shortages, any of which in turn could adversely affect our reputation, competitiveness and results of operations.

Failure to comply with evolving data privacy and data protection laws and regulations or to otherwise protect personal data, may adversely impact our business and financial results.

We are subject to many rapidly evolving privacy and data protection laws and regulations in Europe and around the world. This requires us to operate in a complex environment where there are significant constraints on how we can process personal data across our business. The European General Data Protection Regulation (the "GDPR"), which became effective in May 2018, has established stringent data protection requirements for companies doing business in or handling personal data of individuals in the European Union. The GDPR imposes obligations on data controllers and processors including the requirement to maintain a record of their data processing and to implement policies and procedures as part of their mandated privacy governance framework. Breaches of the GDPR could result in substantial fines, which in some cases could be up to four percent of our worldwide revenue. In addition, a breach of the GDPR or other data privacy or data protection laws or regulations could result in regulatory investigations, reputational damage, orders to cease/change our use of data, enforcement notices, as well potential civil claims including class action type litigation. We have invested, and continue to invest, human and technology resources in our data privacy and data protection compliance efforts. Despite such efforts, there is a risk that we may be subject to fines and penalties, litigation and reputational harm if we fail to properly process or protect the data or privacy of third parties or comply with the GDPR or other applicable data privacy and data protection regimes.

We have identified a material weakness in our internal control over financial reporting that could, if not remediated, result in material inaccuracies in our consolidated financial statements and adversely affect our business and results of operations.

As described in "Item 15. Controls and Procedures" in our Form 20-F for the year ended December 31, 2018, we have concluded that our internal control over financial reporting was ineffective as of December 31, 2018, due to a material weakness in information technology general controls ("ITGC"), which resulted from a failure to select, develop, and monitor control activities in ITGC, specifically the user access and segregation of duties controls in certain applications in North America as well as for select Group applications. We did not maintain sufficient controls over user access to applications including

managing validity of access and segregation of duties. As a result of the deficiencies identified, the process level controls dependent on the effected applications, could not be relied upon.

We are currently working to remediate the material weakness. We cannot be certain that the measures we have taken, and expect to take, will be sufficient to address the deficiencies identified or ensure that our internal control over financial reporting is effective. Moreover, other material weaknesses or deficiencies may develop or be identified in the future. If we are not able to remediate the deficiencies identified and strengthen our internal control over financial reporting, or in the event of any future material weakness, then there may be material inaccuracies in our consolidated financial statements and our business and results of operations may be materially adversely affected.

There is no guarantee that our ongoing efforts to reduce costs will be successful.

We seek continued cost savings through operational excellence and supply chain management. We are also seeking cost savings in connection with our ongoing organizational transformation, including the elimination of our regional/country matrix structure. Lowering our cost base is important for our business and future competitiveness. However, there is no guarantee that we will achieve this goal. If we are unsuccessful and the shortfall is significant, there could be an adverse effect on our business, financial condition, and results of operations.

We could be affected by future laws or regulations enacted to address climate change concerns as well as the physical effects of climate change.

Existing or pending laws and regulations intended to address climate change concerns could materially affect us in the future. We have incurred, and may need to incur additional costs to comply with these laws and regulations. We could also be affected indirectly by increased prices for goods or services provided to us by companies that are directly affected by these laws and regulations and pass their increased costs through to their customers. At this time, we cannot estimate what impact such costs may have on our business, results of operations or financial condition. We could also be affected by the physical consequences of climate change itself, although we cannot estimate what impact those consequences might have on our business or operations.

Risks Related to the Instruments.

Early redemption may adversely affect an investor's return on the Instruments.

If the relevant Issuer is required to pay additional amounts in respect of any Taxes on any series of Instruments, it may redeem such series of Instruments prior to maturity, at its option, in whole but not in part.

An optional redemption feature is likely to limit the market value of Instruments. During any period when the relevant Issuer may elect to redeem Instruments, the market value of those Instruments generally will not rise substantially above the price at which they can be redeemed. This also may be true prior to any redemption period.

Under such circumstances, the relevant Issuer may redeem the Instruments at times when prevailing interest rates may be relatively low. Accordingly, investors may not be able to reinvest the redemption proceeds in comparable securities at effective interest rates as high as those of the Instruments.

Instruments may not be a suitable investment for all investors.

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

- have sufficient knowledge and experience to make a meaningful evaluation of the relevant Instruments, the merits and risks of investing in the relevant Instruments and the information contained or incorporated by reference in this Information Memorandum or any applicable supplement;
- have access to, and knowledge of, appropriate analytical tools to evaluate, in the context of its particular financial situation, an investment in the relevant Instruments and the impact such investment will have on its overall investment portfolio;

- have sufficient financial resources and liquidity to bear all of the risks of an investment in the relevant Instruments, 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;
- understand thoroughly the terms of the relevant Instruments and be familiar with the behaviour of any relevant indices and financial markets; and
- be able to evaluate (either alone or with the help of a financial adviser) possible scenarios for economic, interest rate and other factors that may affect its investment and its ability to bear the applicable risks.

Some Instruments are complex financial instruments and such instruments may be purchased as a way to reduce risk or enhance yield with an understood, measured, appropriate addition of risk to their overall portfolios. A potential investor should not invest in Instruments, which are complex financial instruments, unless it has the expertise (either alone or with the help of a financial adviser) to evaluate how the Instruments will perform under changing conditions, the resulting effects on the value of such Instruments and the impact this investment will have on the potential investor's overall investment portfolio.

Partly-paid Instruments.

The relevant Issuer may issue Instruments where the issue price is payable in more than one instalment. Failure to pay any subsequent instalment could result in an investor losing all of its investment.

Variable rate Instruments with a multiplier or other leverage factor.

Instruments with variable interest rates can be volatile investments. If they are structured to include multipliers or other leverage factors, or caps or floors, or any combination of those features or other similar related features, their market values may be even more volatile than those for securities that do not include those features.

Fixed/floating rate Instruments.

Fixed/floating rate Instruments may bear interest at a rate that the relevant Issuer may elect to convert from a fixed rate to a floating rate, or from a floating rate to a fixed rate. The relevant Issuer's ability to convert the interest rate will affect the secondary market and the market value of such Instruments since the relevant Issuer may be expected to convert the rate when it is likely to produce a lower overall cost of borrowing. If the relevant Issuer converts from a fixed rate to a floating rate, the spread on the fixed/floating rate Instruments may be less favourable than the prevailing spreads on comparable floating rate Instruments tied to the same reference rate. In addition, the new floating rate at any time may be lower than the rates on other Instruments. If the relevant Issuer converts from a floating rate to a fixed rate, the fixed rate may be lower than the prevailing rates on its Instruments.

Instruments linked to "benchmarks"

The London Interbank Offered Rate ("**LIBOR**"), the Euro Interbank Offered Rate ("**EURIBOR**") and other rates and indices which are deemed to be "benchmarks" are the subject of recent international, national and other regulatory guidance and proposals for reform. Some of these reforms are already effective while others are still to be implemented. These reforms may cause such benchmarks to perform differently from the past or disappear entirely, or have other consequences that cannot be predicted.

The Benchmarks Regulation on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds was published in the Official Journal of the EU on 29 June 2016 and became applicable from January 1, 2018. The Benchmarks 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 will, among other things, (i) require benchmark administrators to be authorised or registered (or, if non-EU-based, to be subject to an equivalent regime or otherwise recognised or endorsed) and (ii) prevent certain uses by EU supervised entities (such as the Issuer) of benchmarks of administrators that are not authorised or registered (or, if non-EU based, not deemed equivalent or recognised or endorsed).

The Benchmarks Regulation could have a material impact on any Instruments linked to a rate or index deemed to be a benchmark, in particular, if the methodology or other terms of a benchmark are changed in

order to comply with the requirements of the Benchmarks 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 benchmark.

More broadly, any of the international, national or other proposals for reform, 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: (i) discourage market participants from continuing to administer or contribute to such benchmark; (ii) trigger changes in the rules or methodologies used in the benchmarks or (iii) lead to the disappearance of the benchmark.

Furthermore, LIBOR is the subject of ongoing regulatory reforms. Following the implementation of any of these reforms, the manner of administration of LIBOR may change, with the result that it may perform differently than in the past or be eliminated entirely, or there could be other consequences that cannot be predicted. For example, on July 27, 2017, the FCA, which regulates LIBOR, announced that it will no longer persuade or compel banks to submit rates for the calculation of the LIBOR benchmark after 2021 (the "**FCA Announcement**"). Further, on July 12, 2018 the FCA announced that LIBOR may cease to be a regulated benchmark under the Benchmarks Regulation. The FCA Announcement indicates that the continuation of LIBOR on the current basis cannot and will not be guaranteed after 2021. At this time, it is not possible to predict the effect of any establishment of alternative reference rates or any other reforms to LIBOR that may be enacted in the U.K. or elsewhere. Uncertainty as to the nature of such alternative reference rates or other reforms may adversely affect the trading market for LIBOR-linked securities. The potential elimination of benchmarks, such as LIBOR, the establishment of alternative reference rates or changes in the manner of administration of a benchmark could also require adjustments to the terms of benchmark linked securities and may result in other consequences, such as interest payments that are lower than, or that do not otherwise correlate over time with, the payments that would have been made on those securities if the relevant benchmark was available in its current form.

If the relevant Issuer (in consultation with the Determination Agent) determines that a Benchmark Event (as defined in the relevant Conditions of the Instruments) has occurred, then such Issuer shall use reasonable endeavours to appoint an Independent Adviser for the purposes of determining a Successor Rate or an Alternative Benchmark Rate (as further described in Condition 5F) (*Benchmark Replacement*) and, if applicable, an Adjustment Spread (as defined in the Conditions). If the relevant Issuer is unable to appoint an Independent Adviser or if the Independent Adviser and such Issuer cannot agree upon, or cannot select, the Successor Rate or Alternative Benchmark Rate, the relevant Issuer may determine the replacement rate, provided that if such Issuer is unable or unwilling to determine the Successor Rate or Alternative Benchmark Rate, the further fallbacks described in the terms and conditions of the Instruments shall apply.

The use of a Successor Rate or an Alternative Benchmark Rate may result in interest payments that are substantially lower than or that do not otherwise correlate over time with the payments that could have been made on the Instruments if the relevant benchmark remained available in its current form. Furthermore, if the relevant Issuer is unable to appoint an Independent Adviser or if such Issuer fails to agree a Successor Rate or an Alternative Benchmark Rate or Adjustment Spread, if applicable with the Independent Adviser, the relevant Issuer may have to exercise its discretion to determine (or to elect not to determine) an Alternative Benchmark Rate or Adjustment Spread, if applicable in a situation in which it is presented with a conflict of interest.

Any of the above changes or any other consequential changes to benchmarks as a result of EU, United Kingdom, or other international, national, or other proposals for reform or other initiatives or investigations, or any further uncertainty in relation to the timing and manner of implementation of such changes could have a material adverse effect on the trading market for, value of and return on any Instruments linked to such benchmark.

Investors should consult their own independent advisers and make their own assessment about the potential risks imposed by the Benchmarks Regulation reforms, investigations and licensing issues in making any investment decision with respect to the Instruments linked to a benchmark.

Instruments issued at a substantial discount or premium.

The market values of securities issued at a substantial discount or premium to their nominal amount tend to fluctuate more in relation to general changes in interest rates than prices for conventional interest-bearing securities. Generally, the longer the remaining term of the securities, the greater the price volatility as compared to conventional interest-bearing securities with comparable maturities.

In respect of any Instruments issued as "Green Bonds", there can be no assurance that such use of proceeds will be suitable for the investment criteria of an investor.

The Final Terms relating to any specific Tranche of Instruments may provide that it will be the relevant Issuer's intention to apply the proceeds from an offer of those Instruments specifically for projects and activities that promote climate-friendly and other environmental purposes ("**Eligible Projects**"). Prospective investors should determine for themselves the relevance of such information for the purpose of any investment in such Instruments together with any other investigation such investor deems necessary. In particular no assurance is given by the relevant Issuer, the Guarantor or the relevant Dealer that the use of such proceeds for any Eligible Projects will satisfy, whether in whole or in part, any present or future investor expectations or requirements as regards any investment criteria or guidelines with which such investor or its investments are required to comply, whether by any present or future applicable law or regulations or by its own by-laws or other governing rules or investment portfolio mandates, in particular with regard to any direct or indirect environmental, sustainability or social impact of any projects or uses, the subject of or related to, any Eligible Projects. Furthermore, it should be noted that there is currently no clearly defined definition (legal, regulatory or otherwise) of, nor market consensus as to what constitutes, a "green", "sustainable", "climate-friendly" or an equivalently-labelled project or as to what precise attributes are required for a particular project to be defined as "green", "sustainable", "climate-friendly" or such other equivalent label nor can any assurance be given that such a clear definition or consensus will develop over time. Accordingly, no assurance is or can be given to investors that any projects or uses the subject of, or related to, any Eligible Projects will meet any or all investor expectations regarding such "green", "sustainable", "climate-friendly" or other equivalently-labelled performance objectives or that any adverse environmental, social and/or other impacts will not occur during the implementation of any projects or uses the subject of, or related to, any Eligible Projects.

No assurance or representation is given as to the suitability or reliability for any purpose whatsoever of any opinion or certification of any third party (whether or not solicited by the relevant Issuer or the Guarantor) which may be made available in connection with the issue of any Instruments and in particular with any Eligible Projects to fulfil any environmental, sustainability, social and/or other criteria. For the avoidance of doubt, any such opinion or certification is not, nor shall it be deemed to be, incorporated in and/or form part of this Information Memorandum. Any such opinion or certification is not, nor should be deemed to be, a recommendation by the relevant Issuer, the Guarantor, the relevant Dealer or any other person to buy, sell or hold any such Instruments. Any such opinion or certification is only current as of the date that opinion was initially issued. Prospective investors must determine for themselves the relevance of any such opinion or certification and/or the information contained therein and/or the provider of such opinion or certification for the purpose of any investment in such Instruments. Currently, the providers of such opinions and certifications are not subject to any specific regulatory or other regime or oversight.

In the event that any such Instruments are listed or admitted to trading on any dedicated "green", "environmental", "sustainable", "climate-friendly" or other equivalently-labelled segment of any stock exchange or securities market (whether or not regulated), no representation or assurance is given by the relevant Issuer, the Guarantor, the relevant Dealer or any other person that such listing or admission satisfies, whether in whole or in part, any present or future investor expectations or requirements as regards any investment criteria or guidelines with which such investor or its investments are required to comply, whether by any present or future applicable law or regulations or by its own by-laws or other governing rules or investment portfolio mandates, in particular with regard to any direct or indirect environmental, sustainability or social impact of any projects or uses, the subject of or related to, any Eligible Projects. Furthermore, it should be noted that the criteria for any such listings or admission to trading may vary from one stock exchange or securities market to another. No representation or assurance is given or made by the relevant Issuer, the Guarantor, the relevant Dealer or any other person that any such listing or admission to trading will be obtained in respect of any such Instruments or, if obtained, that any such listing or admission to trading will be maintained during the life of the Instruments.

While it is the intention of the relevant Issuer to apply the proceeds of any Instruments so specified for Eligible Projects in, or substantially in, the manner described in this Information Memorandum, there can be no assurance that the relevant project(s) or use(s) the subject of, or related to, any Eligible Projects will be capable of being implemented in or substantially in such manner and/or accordance with any timing schedule and that accordingly such proceeds will be totally or partially disbursed for such Eligible Projects. Nor can there be any assurance that such Eligible Projects will be completed within any specified period or at all or with the results or outcome (whether or not related to the environment) as originally expected or anticipated by the relevant Issuer. Any such event or failure by the relevant Issuer will not constitute an Event of Default under the Instruments.

Any such event or failure to apply the proceeds of any issue of Instruments for any Eligible Projects as aforesaid and/or withdrawal of any such opinion or certification or any such opinion or certification attesting that the relevant Issuer is not complying in whole or in part with any matters for which such opinion or certification is opining or certifying on and/or any such Instruments no longer being listed or admitted to trading on any stock exchange or securities market as aforesaid may have a material adverse effect on the value of such Instruments and also potentially the value of any other Instruments which are intended to finance Eligible Projects and/or result in adverse consequences for certain investors with portfolio mandates to invest in securities to be used for a particular purpose.

Denominations.

In relation to any issue of Instruments which have a denomination consisting of the minimum specified denomination of Euro 100,000 (or its equivalent) plus a higher integral multiple of another smaller amount, it is possible that the Instruments may be traded in amounts in excess of Euro 100,000 (or its equivalent) that are not integral multiples of Euro 100,000 (or its equivalent). In such a case, a holder who, as a result of trading such amounts, holds a principal amount of less than the minimum specified denomination may not receive a Definitive Instrument in respect of such holding (should Definitive Instruments be printed) and would need to purchase a principal amount of Instruments such that its holding amounts to a specified denomination.

Modification and waivers.

The Conditions contain provisions for calling meetings of holders to consider matters affecting their interests generally. These provisions permit defined majorities to bind all holders including holders who did not attend and vote at the relevant meeting and holders who voted in a manner contrary to the majority.

Risks relating to the United Kingdom's withdrawal from the EU.

As the Instruments are subject to the jurisdiction of English courts, if no new reciprocal agreement on civil justice is agreed between the United Kingdom and the remaining members of the EU, there will also be a period of uncertainty concerning the enforcement of English court judgments as the current regulation concerning the recognition and enforcement of judgments that applies between the United Kingdom and EU Member States, that is, the Recast Brussels Regulation (Regulation (EU) No. 1215/2012 of the European Parliament and of the Council of 12 December 2012) would cease to apply to the United Kingdom (and to United Kingdom judgments). Further, the United Kingdom would no longer be a party to the Lugano Convention under which judgments from the courts of contracting states (currently the EU Member States, plus Switzerland, Iceland and Norway) are recognised and enforced in other contracting states.

In its White Paper from July 2018, the United Kingdom Government stated that it will seek to participate in the Lugano Convention on leaving the EU, which would mean English judgments would continue to be recognised and enforced in The Netherlands, Switzerland and other contracting states. In the same White Paper, the United Kingdom Government also stated it will seek a new bilateral agreement with the EU27 concerning cooperation in the area of civil justice including arrangements for the continued mutual recognition and enforcement of judgments. There can, however, be no assurances as to the terms of any final agreement and, as a result, there remains a risk that a judgment entered against the Issuer in a United Kingdom court may not be recognised or enforceable in The Netherlands or Switzerland as a matter of law without a re-trial on its merits (but will be of persuasive authority as a matter of evidence before the courts of law, arbitral tribunals or executive or other public authorities in The Netherlands or Switzerland). Although the United Kingdom on December 29, 2018 deposited an instrument of accession to the Hague Convention, which would provide a framework for mutual enforcement of exclusive choice of court agreements between the United Kingdom and EU Member States, this will only apply to agreements entered

into on or after the date on which the United Kingdom accedes to the Hague Convention, if no alternative agreement is reached.

United States Foreign Account Tax Compliance Act Withholding ("FATCA").

Under sections 1471 through 1474 of the United States Internal Revenue Code of 1986, as amended (commonly known as "FATCA"), payments of premium (if any) and interest (including original issue discount, if any) on Instruments issued by ABB USA generally will be subject to a 30 per cent. gross basis withholding tax if any such payments are made to a "foreign financial institution" or a "foreign non-financial entity" within the meaning of the FATCA rules, unless certain procedural requirements are satisfied and certain information is provided to the U.S. Internal Revenue Service ("IRS"). Payments with respect to Instruments issued by ABB USA will be subject to withholding pursuant to FATCA as of their date of issuance, in the case of interest.

Under the intergovernmental agreement entered into between the United States and the Netherlands facilitating the implementation of FATCA and implemented by Dutch law, ABB Netherlands expects that it will not be treated as a financial institution. Accordingly, payments with respect to Instruments issued by ABB Netherlands generally should not be subject to FATCA withholding. Nevertheless, if ABB Netherlands were to be treated as a financial institution, it is possible that payments made on or after the date that is two years after final regulations defining "foreign passthru payments" are filed with the U.S. Federal Register on Instruments that are issued more than six months after such final regulations are so filed would be subject to FATCA withholding in respect of the portion of any such payments as are considered to be "foreign passthru payments" under such final regulations.

No additional amounts will be paid by the Relevant Issuer or the Guarantor in respect of any U.S. tax withheld or deducted under or in respect of FATCA. Prospective investors are encouraged to consult with their own tax advisers regarding the possible implications of this legislation on their investment in the Instruments.

Proposed Amendment of the Swiss Withholding Tax Act.

On 4 November 2015, the Swiss Federal Council announced a mandate to the Swiss Federal Finance Department to institute a group of experts tasked with the preparation of a new proposal for a reform of the Swiss withholding tax system. The new proposal is expected to include in respect of interest payments the replacement of the existing debtor-based regime by a paying agent-based regime for Swiss withholding tax similar to the one published on 17 December 2014 by the Swiss Federal Council and repealed on 24 June 2015 following the negative outcome of the legislative consultation with Swiss official and private bodies. Under such a new paying agent-based regime, if enacted, a paying agent in Switzerland may be required to deduct Swiss withholding tax on any payments or any securing of payments of interest in respect of an Instrument for the benefit of the beneficial owner of the payment unless certain procedures are complied with to establish that the owner of the Instrument is not an individual resident in Switzerland.

Dutch tax risks related to the new government's coalition agreement.

On 10 October 2017, the Dutch government released its coalition agreement (*Regeerakkoord*) 2017- 2021, which includes, among others, certain policy intentions for tax reform. The Dutch government released its Tax Plan 2019 as part of Budget Day 2018 on 18 September 2018 and made certain amendments to the Tax Plan 2019 in memoranda of amendments published on 26 October 2018, which include, among others, certain legislative proposals based on the policy intentions as mentioned in the coalition agreement and letter on tax avoidance and tax evasion. Two policy intentions in particular may become relevant in the context of the Dutch tax treatment of ABB Netherlands, the Instruments, and/or payments under the Instruments issued by ABB Netherlands.

The first policy intention relates to the introduction of a thin capitalisation rule for banks and insurers as of 1 January 2020 for which a draft legislative proposal has been published subject to public consultation. Based on the draft legislative proposal, the thin capitalisation rule would limit the deduction of interest payments on debt instruments if, in broad terms, the leverage ratio of a bank, or the own funds ratio of an insurer, is less than 8 per cent. The draft legislative proposal suggests that this thin capitalisation rule will apply solely to banks and insurers with a license or notification from the Dutch Central Bank to operate as such in the Netherlands.

The second policy intention relates to the introduction of a withholding tax on interest paid to creditors in low tax jurisdictions or non-cooperative jurisdictions as of 2021. A legislative proposal introducing a similar conditional withholding tax on dividends (which has been postponed) and the supporting parliamentary documents thereto mention that, like the conditional dividend withholding tax, this interest withholding tax would apply to certain payments made by a Dutch entity directly or indirectly to a group or related entity (acting as a group with others) in a low tax or non-cooperative jurisdiction. However, it cannot be ruled out that it will have a wider application and, as such, it could potentially be applicable to payments under the Instruments. A legislative proposal introducing the conditional withholding tax on interest is still expected to be published in 2019.

Many aspects of these policy intentions remain unclear. However, if the policy intentions are implemented they may have an adverse effect on ABB Netherlands and/or its financial position in which case ABB Netherlands may redeem the Instruments affected pursuant to its option under Condition 6.02 (*Early Redemption for Taxation Reasons*)

Change of law.

The Terms and Conditions of the Instruments are based on English law in effect as at the date of issue of the relevant Instruments and the Guarantee is based on Swiss law in effect as at the date of issue of the Guarantee. No assurance can be given as to the impact of any possible judicial decision or change to English law or Swiss law, as applicable, or administrative practice after the date of issue of the relevant Instruments and the Guarantee, respectively.

Because the global Instruments are held within the clearing systems, investors will have to rely on their procedures for transfers, payments and communications with the Issuer.

Instruments issued under the Programme may be represented by one or more global Instruments. Such global Instruments will be deposited with a common depository or, as the case may be, common safekeeper for Euroclear and Clearstream, Luxembourg or in the case of SIS Instruments be deposited with SIX SIS. Except in the circumstances described in the relevant global Instruments, investors will not be entitled to receive Definitive Instruments or individual instrument certificates. Euroclear and Clearstream, Luxembourg or, in the case of SIS Instruments, SIX SIS will maintain records of the beneficial interests in the global Instruments. While the Instruments are represented by one or more global Instruments, investors will be able to trade their beneficial interests only through Euroclear and Clearstream, Luxembourg or, in the case of SIS Instruments, SIX SIS.

While the Instruments are represented by one or more global Instruments, the relevant Issuer will discharge its payment obligations under the Instruments by making payments to the common depository for Euroclear and Clearstream, Luxembourg or, in the case of SIS Instruments, SIX SIS for distribution to their account holders. A holder of a beneficial interest in a global Instrument must rely on the procedures of Euroclear and Clearstream, Luxembourg or, in the case of SIS Instruments, SIX SIS to receive payments under the relevant Instruments. The relevant Issuer has no responsibility or liability for the records relating to, or payments made in respect of, beneficial interests in the global Instruments.

Holders of beneficial interests in the global Instruments (except in relation to SIS Instruments) will not have a direct right to vote in respect of the relevant Instruments. Instead, such holders will be permitted to act only to the extent that they are enabled by Euroclear and Clearstream, Luxembourg to appoint appropriate proxies. Similarly, holders of beneficial interests in the global Instruments will not have a direct right under the global Instruments to take enforcement action against the relevant Issuer in the event of a default under the Instruments but will have to rely upon their rights under the relevant Deed of Covenant.

Credit ratings may not reflect all risks.

One or more independent credit rating agencies may assign credit ratings to an issue of Instruments. The ratings 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 Instruments. A credit rating is not a recommendation to buy, sell or hold securities and may be revised or withdrawn by the rating agency at any time.

In general, European regulated investors are restricted under the CRA Regulation from using credit ratings for regulatory purposes, unless such ratings are issued by a credit rating agency established in the EU and

registered under the CRA Regulation (and such registration has not been withdrawn or suspended), subject to transitional provisions that apply in certain circumstances whilst the registration application is pending. Such general restriction will also apply in the case of credit ratings issued by non-EU credit rating agencies, unless the relevant credit ratings are endorsed by an EU-registered credit rating agency or the relevant non-EU rating agency is certified in accordance with the CRA Regulation (and such endorsement action or certification, as the case may be, has not been withdrawn or suspended). The list of registered and certified rating agencies published by ESMA on its website in accordance with the CRA Regulation is not conclusive evidence of the status of the relevant rating agency being included in such list as there may be delays between certain supervisory measures being taken against a relevant rating agency and publication of an updated ESMA list. Limited information with respect to the credit rating agencies and ratings is disclosed on the front cover of this Information Memorandum and, if a Tranche of Instruments is rated, such rating will be disclosed in the relevant Final Terms.

Risks related to the market generally

There may not be a trading market for the Instruments.

The Instruments are a new issue of securities for which currently there is no existing trading market. Accordingly, there can be no assurance that any trading market for the Instruments will ever develop or be maintained. Further, there can be no assurance as to the liquidity of any trading market that may develop for the Instruments or as to an investor's ability to sell its Instruments when desired or the prices at which an investor will be able to sell its Instruments. Future trading prices of the Instruments will depend on many factors, including the level, direction and volatility of prevailing interest rates, the financial condition, liquidity, cash flows and results of operations of the relevant Issuer and ABB Ltd and the then-current ratings assigned to the Instruments as well as the market for similar securities.

Exchange rate risks and exchange controls.

The relevant Issuer will pay principal and interest on the Instruments in the specified currency. This presents certain risks relating to currency conversions if an investor's financial activities are denominated principally in a currency or currency unit (the "**Investor's Currency**") other than the specified currency. These include the risk that exchange rates may significantly change (including changes due to devaluation of the specified currency or revaluation of the Investor's Currency) and the risk that authorities with jurisdiction over the Investor's Currency may impose or modify exchange controls. 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 Instruments, (2) the Investor's Currency-equivalent value of the principal payable on the Instruments and (3) the Investor's Currency-equivalent market value of the Instruments.

Government and monetary authorities may impose (as some have done in the past) 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.

Legal investment considerations may restrict certain investments.

The investment activities of certain investors are subject to investment laws and regulations, or review or regulation by certain authorities. Each potential investor should consult its legal advisers to determine whether and to what extent (1) Instruments are legal investments for it, (2) Instruments can be used as collateral for various types of borrowing and (3) other restrictions apply to its purchase or pledge of any Instruments. Financial institutions should consult their legal advisers or the appropriate regulators to determine the appropriate treatment of Instruments under any applicable risk-based capital or similar rules.

Conflicts of Interest on the part of the Determination Agent

The relevant Issuer may appoint a Dealer as Determination Agent in respect of an issuance of Instruments under the Information Memorandum. In such a case the Determination Agent is likely to be a member of an international financial group that is involved, in the ordinary course of its business, in a wide range of banking activities out of which conflicting interests may arise. Whilst such a Determination Agent will, where relevant, have information barriers and procedures in place to manage conflicts of interest, it may in its other banking activities from time to time be engaged in transactions involving an index or related derivatives which may affect amounts receivable by holders of the Instruments during the term and on the

maturity of the Instruments or the market price, liquidity or value of the Instruments and which could be deemed to be adverse to the interests of the holders of the Instruments.

FINAL TERMS AND DRAWDOWN INFORMATION MEMORANDUMS

In this section the expression "*necessary information*" means, in relation to any Tranche of Instruments, the information necessary to enable investors to make an informed assessment of the assets and liabilities, financial position, profits and losses and prospects of the relevant Issuer and the Guarantor and of the rights attaching to the Instruments. In relation to the different types of Instruments which may be issued under the Programme, each of the Issuers and the Guarantor have endeavoured to include in this Information Memorandum all of the necessary information except for information relating to the Instruments which is not known at the date of this Information Memorandum and which can only be determined at the time of an individual issue of a Tranche of Instruments.

Any information relating to the Instruments which is not included in this Information Memorandum and which is required in order to complete the necessary information in relation to a Tranche of Instruments will be contained either in the relevant Final Terms or in a Drawdown Information Memorandum.

For a Tranche of Instruments which is the subject of Final Terms, those Final Terms will, for the purposes of that Tranche only, supplement this Information Memorandum and must be read in conjunction with this Information Memorandum. The terms and conditions applicable to any particular Tranche of Instruments which is the subject of Final Terms are the Conditions as supplemented, amended and/or replaced to the extent described in the relevant Final Terms.

The terms and conditions applicable to any particular Tranche of Instruments which is the subject of a Drawdown Information Memorandum will be the Conditions as supplemented, amended and/or replaced to the extent described in the relevant Drawdown Information Memorandum. In the case of a Tranche of Instruments which is the subject of a Drawdown Information Memorandum, each reference in this Information Memorandum to information being specified or identified in the relevant Final Terms shall be read and construed as a reference to such information being specified or identified in the relevant Drawdown Information Memorandum unless the context requires otherwise.

Each Drawdown Information Memorandum will be constituted by a single document containing the necessary information relating to the relevant Issuer and the Guarantor and the relevant Instruments.

FORMS OF THE INSTRUMENTS

Bearer Instruments – Non SIS Instruments

Instruments issued by ABB USA may only be issued in registered form, except in the case of SIS Instruments in which case such Instruments shall be issued under procedures which result in the issuance of such Instruments as being in registered form for US tax purposes.

Each Tranche of Instruments in bearer form ("**Bearer Instruments**") will initially be in the form of either a temporary global instrument in bearer form (the "**Temporary Global Instrument**"), without interest coupons, or a permanent global instrument in bearer form (the "**Permanent Global Instrument**"), without interest coupons, in each case as specified in the relevant Final Terms. Each Temporary Global Instrument or, as the case may be, Permanent Global Instrument (each a "**Global Instrument**") which is not intended to be issued in new global note ("**NGN**") form, as specified in the relevant Final Terms, will be deposited on or around the issue date of the relevant Tranche of the Instruments with a depositary or a common depositary for Euroclear Bank SA/NV ("**Euroclear**") and/or Clearstream Banking, S.A., Luxembourg ("**Clearstream, Luxembourg**") and/or any other relevant clearing system and each Global Instrument which is intended to be issued in NGN form, as specified in the relevant Final Terms, will be deposited on or around the issue date of the relevant Tranche of the Instruments with a common safekeeper for Euroclear and/or Clearstream, Luxembourg.

On June 13, 2006 the European Central Bank (the "**ECB**") announced that Instruments in NGN form are in compliance with the "*Standards for the use of EU securities settlement systems in ESCB credit operations*" of the central banking system for the euro (the "**Eurosystem**"), **provided that** certain other criteria are fulfilled. At the same time the ECB also announced that arrangements for Instruments in NGN form will be offered by Euroclear and Clearstream, Luxembourg as of June 30, 2006 and that debt securities in global bearer form issued through Euroclear and Clearstream, Luxembourg after December 31, 2006 will only be eligible as collateral for Eurosystem operations if the NGN form is used.

Temporary Global Instrument exchangeable for Permanent Global Instrument

If the relevant Final Terms specifies the form of Instruments as being "Temporary Global Instrument exchangeable for a Permanent Global Instrument", then the Instruments will initially be in the form of a Temporary Global Instrument which will be exchangeable, in whole or in part, for interests in a Permanent Global Instrument, without interest coupons, not earlier than 40 days after the issue date of the relevant Tranche of the Instruments upon certification as to non-U.S. beneficial ownership. No payments will be made under the Temporary Global Instrument unless exchange for interests in the Permanent Global Instrument is improperly withheld or refused. In addition, interest payments in respect of the Instruments cannot be collected without such certification of non-U.S. beneficial ownership.

Whenever any interest in the Temporary Global Instrument is to be exchanged for an interest in a Permanent Global Instrument, the relevant Issuer shall procure (in the case of first exchange) the delivery of a Permanent Global Instrument to the bearer of the Temporary Global Instrument or (in the case of any subsequent exchange) an increase in the principal amount of the Permanent Global Instrument in accordance with its terms against:

- (i) presentation and (in the case of final exchange) presentation and surrender of the Temporary Global Instrument to or to the order of the Fiscal Agent; and
- (ii) receipt by the Fiscal Agent of a certificate or certificates of non-U.S. beneficial ownership.

The principal amount of Instruments represented by the Permanent Global Instrument shall be equal to the aggregate of the principal amounts specified in the certificates of non-U.S. beneficial ownership **provided, however, that** in no circumstances shall the principal amount of Instruments represented by the Permanent Global Instrument exceed the initial principal amount of Instruments represented by the Temporary Global Instrument.

If:

- (i) the Permanent Global Instrument has not been delivered or the principal amount thereof increased by 5.00 p.m. (London time) on the seventh day after the bearer of the Temporary Global Instrument

has requested exchange of an interest in the Temporary Global Instrument for an interest in a Permanent Global Instrument; or

- (ii) the Temporary Global Instrument (or any part thereof) has become due and payable in accordance with the Terms and Conditions of the Instruments or the date for final redemption of the Temporary Global Instrument has occurred and, in either case, payment in full of the amount of principal falling due with all accrued interest thereon has not been made to the bearer of the Temporary Global Instrument in accordance with the terms of the Temporary Global Instrument on the due date for payment,

then the Temporary Global Instrument (including the obligation to deliver a Permanent Global Instrument) will become void at 5.00 p.m. (London time) on such seventh day (in the case of (a) above) or at 5.00 p.m. (London time) on such due date (in the case of (b) above) and the bearer of the Temporary Global Instrument will have no further rights thereunder (but without prejudice to the rights which the bearer of the Temporary Global Instrument or others may have under the relevant Deed of Covenant).

The Permanent Global Instrument will become exchangeable, in whole but not in part only and at the request of the bearer of the Permanent Global Instrument, for Bearer Instruments in definitive form ("**Definitive Instruments**"):

- (i) on the expiry of such period of notice as may be specified in the Final Terms; or
- (ii) at any time, if so specified in the Final Terms; or
- (iii) if the Final Terms specifies "in the limited circumstances described in the Permanent Global Instrument", then if either of the following events occurs:
 - (a) Euroclear or Clearstream, Luxembourg or any other relevant clearing system is closed for business for a continuous period of 14 days (other than by reason of legal holidays) or announces an intention permanently to cease business; or
 - (b) any of the circumstances described in Condition 7 (*Events of Default*) occurs, unless all such circumstances have been cured in accordance with Condition 7 (*Events of Default*).

Whenever the Permanent Global Instrument is to be exchanged for Definitive Instruments, the relevant Issuer shall procure the prompt delivery (free of charge to the bearer) of such Definitive Instruments, duly authenticated and with Coupons and Talons attached (if so specified in the Final Terms), in an aggregate principal amount equal to the principal amount of Instruments represented by the Permanent Global Instrument to the bearer of the Permanent Global Instrument against the surrender of the Permanent Global Instrument to or to the order of the Fiscal Agent within 30 days of the bearer requesting such exchange.

If:

- (i) Definitive Instruments have not been duly delivered by 5.00 p.m. (London time) on the thirtieth day after the bearer has requested exchange of the Permanent Global Instrument for Definitive Instruments; or
- (ii) the Permanent Global Instrument was originally issued in exchange for part only of a Temporary Global Instrument representing the Instruments and such Temporary Global Instrument becomes void in accordance with its terms; or
- (iii) the Permanent Global Instrument (or any part thereof) has become due and payable in accordance with the Terms and Conditions of the Instruments or the date for final redemption of the Permanent Global Instrument has occurred and, in either case, payment in full of the amount of principal falling due with all accrued interest thereon has not been made to the bearer in accordance with the terms of the Permanent Global Instrument on the due date for payment,

then the Permanent Global Instrument (including the obligation to deliver Definitive Instruments) will become void at 5.00 p.m. (London time) on such thirtieth day (in the case of (a) above) or at 5.00 p.m. (London time) on the date on which such Temporary Global Instrument becomes void (in the case of (b) above) or at 5.00 p.m. (London time) on such due date ((c) above) and the bearer of the Permanent Global

Instrument will have no further rights thereunder (but without prejudice to the rights which the bearer of the Permanent Global Instrument or others may have under the relevant Deed of Covenant).

Temporary Global Instrument exchangeable for Definitive Instruments

If the relevant Final Terms specifies the form of Instruments as being "Temporary Global Instrument exchangeable for Definitive Instruments" and also specifies that the TEFRA C Rules are applicable or that neither the TEFRA C Rules nor the TEFRA D Rules are applicable, then the Instruments will initially be in the form of a Temporary Global Instrument which will be exchangeable, in whole but not in part, for Definitive Instruments not earlier than 40 days after the issue date of the relevant Tranche of the Instruments.

If the relevant Final Terms specifies the form of Instruments as being "Temporary Global Instrument exchangeable for Definitive Instruments" and also specifies that the TEFRA D Rules are applicable, then the Instruments will initially be in the form of a Temporary Global Instrument which will be exchangeable, in whole or in part, for Definitive Instruments not earlier than 40 days after the issue date of the relevant Tranche of the Instruments upon certification as to non-U.S. beneficial ownership. Interest payments in respect of the Instruments cannot be collected without such certification of non-U.S. beneficial ownership.

Whenever the Temporary Global Instrument is to be exchanged for Definitive Instruments, the relevant Issuer shall procure the prompt delivery (free of charge to the bearer) of such Definitive Instruments, duly authenticated and with Coupons and Talons attached (if so specified in the relevant Final Terms), in an aggregate principal amount equal to the principal amount of the Temporary Global Instrument to the bearer of the Temporary Global Instrument against the surrender of the Temporary Global Instrument to or to the order of the Fiscal Agent within 30 days of the bearer requesting such exchange.

If:

- (i) Definitive Instruments have not been duly delivered by 5.00 p.m. (London time) on the thirtieth day after the bearer has requested exchange of the Temporary Global Instrument for Definitive Instruments; or
- (ii) the Temporary Global Instrument (or any part thereof) has become due and payable in accordance with the Terms and Conditions of the Instruments or the date for final redemption of the Temporary Global Instrument has occurred and, in either case, payment in full of the amount of principal falling due with all accrued interest thereon has not been made to the bearer in accordance with the terms of the Temporary Global Instrument on the due date for payment,

then the Temporary Global Instrument (including the obligation to deliver Definitive Instruments) will become void at 5.00 p.m. (London time) on such thirtieth day (in the case of (a) above) or at 5.00 p.m. (London time) on such due date (in the case of (b) above) and the bearer of the Temporary Global Instrument will have no further rights thereunder (but without prejudice to the rights which the bearer of the Temporary Global Instrument or others may have under the relevant Deed of Covenant).

Permanent Global Instrument exchangeable for Definitive Instruments

If the relevant Final Terms specifies the form of Instruments as being "Permanent Global Instrument exchangeable for Definitive Instruments", then the Instruments will initially be in the form of a Permanent Global Instrument which will be exchangeable in whole, but not in part, for Definitive Instruments:

- (i) on the expiry of such period of notice as may be specified in the relevant Final Terms; or
- (ii) at any time, if so specified in the relevant Final Terms; or
- (iii) if the relevant Final Terms specifies "in the limited circumstances described in the Permanent Global Instrument", then if either of the following events occurs:
 - (a) Euroclear or Clearstream, Luxembourg or any other relevant clearing system is closed for business for a continuous period of 14 days (other than by reason of legal holidays) or announces an intention permanently to cease business; or

- (b) any of the circumstances described in Condition 7 (*Events of Default*) occurs, unless all such circumstances have been cured in accordance with Condition 7 (*Events of Default*).

Whenever the Permanent Global Instrument is to be exchanged for Definitive Instruments, the relevant Issuer shall procure the prompt delivery (free of charge to the bearer) of such Definitive Instruments, duly authenticated and with Coupons and Talons attached (if so specified in the Final Terms), in an aggregate principal amount equal to the principal amount of Instruments represented by the Permanent Global Instrument to the bearer of the Permanent Global Instrument against the surrender of the Permanent Global Instrument to or to the order of the Fiscal Agent within 30 days of the bearer requesting such exchange.

If:

- (i) Definitive Instruments have not been duly delivered by 5.00 p.m. (London time) on the thirtieth day after the bearer has requested exchange of the Permanent Global Instrument for Definitive Instruments; or
- (ii) the Permanent Global Instrument (or any part thereof) has become due and payable in accordance with the Terms and Conditions of the Instruments or the date for final redemption of the Permanent Global Instrument has occurred and, in either case, payment in full of the amount of principal falling due with all accrued interest thereon has not been made to the bearer in accordance with the terms of the Permanent Global Instrument on the due date for payment,

then the Permanent Global Instrument (including the obligation to deliver Definitive Instruments) will become void at 5.00 p.m. (London time) on such thirtieth day (in the case of (a) above) or at 5.00 p.m. (London time) on such due date ((b) above) and the bearer of the Permanent Global Instrument will have no further rights thereunder (but without prejudice to the rights which the bearer of the Permanent Global Instrument or others may have under the relevant Deed of Covenant).

Rights under Deed of Covenant

Under the relevant Deed of Covenant, persons shown in the records of Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system as being entitled to an interest in a Temporary Global Instrument or a Permanent Global Instrument (other than a SIS Instrument) which becomes void will acquire directly against the relevant Issuer all those rights to which they would have been entitled if, immediately before the Temporary Global Instrument or Permanent Global Instrument (other than a SIS Instrument) became void, they had been the holders of Definitive Instruments in an aggregate principal amount equal to the principal amount of Instruments they were shown as holding in the records of Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system.

Bearer Instruments - SIS Instruments

SIS Instruments will be represented exclusively by a Permanent Global Instrument which shall be deposited with SIX SIS. Neither the relevant Issuer nor any Holder of SIS Instruments will at any time have the right to effect or demand the conversion of the Permanent Global Instrument representing such SIS Instruments into, or the delivery of, Instruments in definitive or uncertificated form. Holders of SIS Instruments do not have the right to request the printing and delivery of a Definitive Instrument. Once the Permanent Global Instrument is deposited with the SIX SIS and entered into the accounts of one or more participants of SIX SIS, the SIS Instruments represented thereby will constitute intermediated securities (*Bucheffekten*) within the meaning of the Swiss Federal Intermediated Securities Act (*Bucheffektengesetz*) ("**Intermediated Securities**"). Each Holder shall have a quotal co-ownership interest (*Miteigentumsanteil*) in the SIS Instrument to the extent of his claim against the relevant Issuer, provided that for so long as the Permanent Global Instrument remains deposited with the SIX SIS and are entered into the accounts of one or more participants of the SIX SIS the co-ownership interest shall be suspended and the SIS Instruments may only be transferred or otherwise disposed of in accordance with the provisions of the Swiss Federal Intermediated Securities Act (*Bucheffektengesetz*). The records of SIX SIS will determine the number of SIS Instruments held through each participant in SIX SIS. In respect of the SIS Instruments held in the form of Intermediated Securities, the holders of such SIS Instruments will be the persons holding such SIS Instruments in a securities account (*Effektenkonto*) or, in the case of intermediaries (*Verwahrungsstellen*), the intermediaries (*Verwahrungsstellen*) holding such SIS Instruments in a securities account (*Effektenkonto*).

In respect of SIS Instruments, if the Swiss Paying Agent deems (i) the printing of Definitive Instruments and Coupons to be necessary or useful or (ii) the presentation of Definitive Instruments and/or Coupons to be required by Swiss or foreign laws in connection with the enforcement of the rights of the Holders, the Swiss Paying Agent will provide for such printing provided, however, that in the case of Instruments issued by ABB USA, Definitive Instruments may only be issued in registered form. The relevant Issuer has irrevocably authorised the Swiss Paying Agent to provide for such printing on its behalf. The Definitive Instruments will be printed and issued to the Holders free of charge in exchange for their interests in the respective global instrument. Permanent Global Instruments representing SIS Instruments do not become void. If necessary for the enforcement of the Instruments, the Swiss Paying Agent will cause the printing and delivery of Definitive Instruments as set out herein.

Rights under Deed of Covenant

In respect of the SIS Instruments, in the event (a) (i) the SIX SIS is closed for business for a continuous period of 14 days (other than by reason of legal holidays) or announces an intention to permanently cease business; or (ii) any of the circumstances described in Condition 7 (*Events of Default*) occurs, unless all circumstances have been cured in accordance with Condition 7 (*Events of Default*), and (b) the Swiss Paying Agent has not caused the printing of Definitive Instruments and/or Coupons in accordance with the terms of the Permanent Global Instrument then, at 5.00pm on the thirtieth day after the occurrence of either (i) or (ii) above, the Holder of such SIS Instrument as denoted the records of the SIX SIS will pursuant to the relevant Deed of Covenant also acquire directly against the relevant Issuer all those rights to which they would have been entitled if it were the holder of the Permanent Global Instrument.

Bearer Instruments - General

Terms and Conditions applicable to the Instruments

The terms and conditions applicable to any Definitive Instrument will be endorsed on that Instrument and will consist of the terms and conditions set out under "*Terms and Conditions of the Instruments*" below and the provisions of the relevant Final Terms which supplement, amend and/or replace those terms and conditions.

The terms and conditions applicable to any Instrument in global form will differ from those terms and conditions which would apply to the Instrument were it in definitive form to the extent described under "*Summary of Provisions Relating to the Instruments while in Global Form*" below.

Legend concerning United States persons

In the case of any Tranche of Bearer Instruments having a maturity of more than 365 days, the Instruments in global form, the Instruments in definitive form and any Coupons and Talons appertaining thereto will bear a legend to the following effect:

"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 U.S. Internal Revenue Code."

In the case of each Tranche of Bearer Instruments, the relevant Final Terms will also specify whether United States Treasury Regulation §1.163-5(c)(2)(i)(C) (the "**TEFRA C Rules**") or United States Treasury Regulation §1.163-5(c)(2)(i)(D) (the "**TEFRA D Rules**") are applicable in relation to the Instruments or, if the Instruments do not have a maturity of more than 365 days, that neither the TEFRA C Rules nor the TEFRA D Rules are applicable.

Registered Instruments

Each Tranche of Registered Instruments will be in the form of either individual Certificates in registered form ("**Individual Certificates**") or a global Instrument in registered form (a "**Global Registered Instrument**"), in each case as specified in the relevant Final Terms.

In a press release dated October 22, 2008, "*Evolution of the custody arrangement for international debt securities and their eligibility in Eurosystem credit operations*", the ECB announced that it has assessed the new holding structure and custody arrangements for registered instruments which the ICSDs had designed in cooperation with market participants and that Instruments to be held under the new structure (the "**New**

Safekeeping Structure" or "NSS") would be in compliance with the "*Standards for the use of EU securities settlement systems in ESCB credit operations*" of the central banking system for the Euro (the "**Eurosystem**"), subject to the conclusion of the necessary legal and contractual arrangements. The press release also stated that the new arrangements for Instruments to be held in NSS form will be offered by Euroclear and Clearstream, Luxembourg as of 30 June 2010 and that registered debt securities in global registered form issued or held through Euroclear and Clearstream, Luxembourg after September 30, 2010 will only be eligible as collateral in Eurosystem operations if the New Safekeeping Structure is used.

Each Global Registered Instrument will either be: (a) in the case of an Instrument which is not to be held under the New Safekeeping Structure, registered in the name of a common depository (or its nominee) for Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system and the relevant Global Registered Instrument will be deposited on or about the issue date with the common depository and will be exchangeable in accordance with its terms; or (b) in the case of an Instrument to be held under the New Safekeeping Structure, be registered in the name of a common safekeeper (or its nominee) for Euroclear and/or Clearstream, Luxembourg and the relevant Global Registered Instrument will be deposited on or about the issue date with the common safekeeper for Euroclear and/or Clearstream, Luxembourg and will be exchangeable for Individual Certificates in accordance with its terms.

If the relevant Final Terms specifies the form of Instruments as being "Individual Certificates", then the Instruments will at all times be in the form of Individual Certificates issued to each Holder in respect of their respective holdings.

Global Registered Instrument exchangeable for Individual Certificates

If the relevant Final Terms specifies the form of Instruments as being "Global Registered Instrument exchangeable for Individual Certificates", then the Instruments will initially be in the form of a Global Registered Instrument which will be exchangeable in whole, but not in part, for Individual Certificates:

- (i) on the expiry of such period of notice as may be specified in the relevant Final Terms; or
- (ii) at any time, if so specified in the relevant Final Terms; or
- (iii) if the relevant Final Terms specifies "in the limited circumstances described in the Global Registered Instrument", then if either of the following events occurs:
 - (a) Euroclear or Clearstream, Luxembourg or any other relevant clearing system is closed for business for a continuous period of 14 days (other than by reason of legal holidays) or announces an intention permanently to cease business or
 - (b) any of the circumstances described in Condition 7 (*Events of Default*) occurs, unless all such circumstances have been cured in accordance with Condition 7 (*Events of Default*).

Whenever the Global Registered Instrument is to be exchanged for Individual Certificates, the relevant Issuer shall procure that Individual Certificates will be issued in an aggregate principal amount equal to the principal amount of the Global Registered Instrument within five business days of the delivery, by or on behalf of the registered holder of the Global Registered Instrument to the Principal Registrar of such information as is required to complete and deliver such Individual Certificates (including, without limitation, the names and addresses of the persons in whose names the Individual Certificates are to be registered and the principal amount of each such person's holding) against the surrender of the Global Registered Instrument at the specified office of the Principal Registrar.

Such exchange will be effected in accordance with the provisions of the Fiscal Agency Agreement and the regulations concerning the transfer and registration of Instruments scheduled thereto and, in particular, shall be effected without charge to any Holder, but against such indemnity as the Principal Registrar may require in respect of any tax or other duty of whatsoever nature which may be levied or imposed in connection with such exchange.

If:

- (i) Individual Certificates have not been delivered by 5.00 p.m. (London time) on the thirtieth day after they are due to be issued and delivered in accordance with the terms of the Global Registered Instrument; or

- (ii) any of the Instruments represented by a Global Registered Instrument (or any part of it) has become due and payable in accordance with the Terms and Conditions of the Instruments or the date for final redemption of the Instruments has occurred and, in either case, payment in full of the amount of principal falling due with all accrued interest thereon has not been made to the Holder of the Global Registered Instrument in accordance with the terms of the Global Registered Instrument on the due date for payment,

then, at 5.00 p.m. (London time) on such thirtieth day (in the case of (a) above) or at 5.00 p.m. (London time) on such due date (in the case of (b) above) each person shown in the records of Euroclear and/or Clearstream, Luxembourg (or any other relevant clearing system) as being entitled to interest in the Global Registered Instruments (each an "**Accountholder**") shall acquire under the relevant Deed of Covenant rights of enforcement against the relevant Issuer ("**Direct Rights**") to compel the relevant Issuer to perform its obligations to the Holder of the Global Registered Instrument in respect of the Instruments represented by the Global Registered Instrument, including the obligation of the relevant Issuer to make all payments when due at any time in respect of such Instruments in accordance with the Conditions as if such Instruments had (where required by the Conditions) been duly presented and surrendered on the due date in accordance with the Conditions.

The Direct Rights shall be without prejudice to the rights which the Holder of the Global Registered Instrument may have under the Global Registered Instrument or otherwise. Payment to the Holder of the Global Registered Instrument in respect of any Instruments represented by the Global Registered Instrument shall constitute a discharge of the relevant Issuer's obligations under the Instruments and the relevant Deed of Covenant to the extent of any such payment and nothing in the relevant Deed of Covenant shall oblige the relevant Issuer to make any payment under the Instruments to or to the order of any person other than the Holder of the Global Registered Instrument.

As a condition of any exercise of Direct Rights by an Accountholder, such Accountholder shall, as soon as practicable, procure that notice of such exercise is given to the Holders in the manner provided for in the Conditions or the Global Registered Instrument for notices to be given by the relevant Issuer to Holders.

Terms and Conditions applicable to the Instruments

The terms and conditions applicable to any Individual Certificate will be endorsed on that Individual Certificate and will consist of the terms and conditions set out under "*Terms and Conditions of the Instruments*" below and the provisions of the relevant Final Terms which supplement, amend and/or replace those terms and conditions.

The terms and conditions applicable to any Global Registered Instrument will differ from those terms and conditions which would apply to the Instrument were it in definitive form to the extent described under "*Summary of Provisions Relating to the Instruments while in Global Form*" below.

TERMS AND CONDITIONS OF THE INSTRUMENTS

The following is the text of the terms and conditions which, as supplemented, amended and/or replaced by the relevant Final Terms, will be endorsed on each Instrument in definitive form issued under the Programme. The terms and conditions applicable to any Instrument in global form will differ from those terms and conditions which would apply to the Instrument were it in definitive form to the extent described under "Summary of Provisions Relating to the Instruments while in Global Form" below. The relevant Final Terms in relation to any Tranche of Instruments may specify other Terms and Conditions which shall, to the extent so specified or to the extent inconsistent with these Terms and Conditions, replace the following Terms and Conditions for the purposes of such Tranche of Instruments:

ABB Finance B.V. ("**ABB Netherlands**") and ABB Finance (USA) Inc. ("**ABB USA**") (each an "**Issuer**" and, together, the "**Issuers**") have established a programme for the issuance of debt instruments (the "**Programme**") for the issuance of up to U.S.\$8,000,000,000 in aggregate principal amount of instruments (the "**Instruments**"). The Instruments issued under the Programme by the Issuers are guaranteed by ABB Ltd (the "**Guarantor**"). The Instruments are issued in accordance with the fiscal agency agreement dated April 1, 2019 (the "**Fiscal Agency Agreement**", which expression shall include any amendments or supplements thereto) and made between the Issuers, the Guarantor, BNP Paribas Securities Services, Luxembourg Branch in its capacities as fiscal agent (the "**Fiscal Agent**", which expression shall include any successor to BNP Paribas Securities Services, Luxembourg Branch in its capacity as such) and as principal registrar (the "**Principal Registrar**", which expression shall include any successor to BNP Paribas Securities Services, Luxembourg Branch in its capacity as such), and the paying agents named therein (the "**Paying Agents**", which expression shall include the Fiscal Agent and any substitute or additional paying agents appointed in accordance with the Fiscal Agency Agreement). The Instruments have the benefit of a guarantee dated April 1, 2019 (the "**Guarantee**", which expression shall include any amendments or supplements thereto) entered into by the Guarantor. Each of ABB Netherlands and ABB USA have, in relation to Instruments to be issued by them respectively, executed and delivered a deed of covenant dated April 1, 2019 (the "**ABB Netherlands Deed of Covenant**" and the "**ABB USA Deed of Covenant**", each a "**Deed of Covenant**" and together the "**Deeds of Covenant**", which expressions shall include any amendments or supplements thereto and any deed of covenant that shall have been entered into by a Substituted Debtor (as defined in Condition 15 (*Substitution*) as referred to in Condition 15 (*Substitution*)), with references herein to the "**relevant Deed of Covenant**" being to the Deed of Covenant of the relevant Issuer). Copies of the Fiscal Agency Agreement, the Deeds of Covenant and the Guarantee are available for inspection during normal business hours at the Specified Office (as defined in the Fiscal Agency Agreement) of each of the Paying Agents and the Principal Registrar. All persons from time to time entitled to the benefit of obligations under any Instruments shall be deemed to have notice of and shall be bound by, all of the provisions of the Fiscal Agency Agreement, the relevant Deed of Covenant and the Guarantee insofar as they relate to the relevant Instruments.

The Instruments issued under the Programme are issued in series (each a "**Series**"), and each Series may comprise one or more tranches ("**Tranches**" and each a "**Tranche**") of Instruments. Each Tranche will be the subject of final terms ("**Final Terms**"), which supplements these terms and conditions (the "**Conditions**"). The terms and conditions applicable to any particular Tranche of Instruments are these Conditions as supplemented, amended and/or replaced by the relevant Final Terms. In the event of any inconsistency between these Conditions and the relevant Final Terms, the relevant Final Terms shall prevail. A copy of the Final Terms will be available for inspection at the Specified Office of the Fiscal Agent or, as the case may be, the Registrar (as defined in Condition 2.02) and will be available free of charge at the Specified Office of ABB Ltd. In the case of a Tranche of Instruments in relation to which application has not been made for listing on any stock exchange, copies of the relevant Final Terms will only be available for inspection by a Holder of or, as the case may be, a relevant Accountholder (as defined in the Deed of Covenant) in respect of such Instruments.

All subsequent references in these Conditions to "**Instruments**" are to the Instruments which are the subject of the relevant Final Terms.

In these Conditions:

- (i) references herein to the "**Issuer**" shall be references to the party specified as such in the applicable Final Terms or any Substituted Debtor (as defined in Condition 15 (*Substitution*));

- (ii) if talons for further coupons ("**Talons**") are specified in the relevant Final Terms as being attached to the Instruments at the time of issue, references to coupons ("**Coupons**") shall be deemed to include references to Talons;
- (iii) if Talons are not specified in the relevant Final Terms as being attached to the Instruments at the time of issue, references to Talons are not applicable;
- (iv) any reference to principal shall be deemed to include the Redemption Amount, any additional amounts in respect of principal which may be payable under Condition 8 (*Taxation*), any premium payable in respect of an Instrument and any other amount in the nature of principal payable pursuant to these Conditions;
- (v) any reference to interest shall be deemed to include any additional amounts in respect of interest which may be payable under Condition 8 (*Taxation*) and any other amount in the nature of interest payable pursuant to these Conditions;
- (vi) references to Instruments being "outstanding" shall be construed in accordance with the Fiscal Agency Agreement;
- (vii) if an expression is stated to have the meaning given in the relevant Final Terms, but the relevant Final Terms gives no such meaning or specifies that such expression is "not applicable" then such expression is not applicable to the Instruments; and
- (viii) any reference to a Deed of Covenant, Fiscal Agency Agreement or the Guarantee shall be construed as a reference to such Deed of Covenant, Fiscal Agency Agreement or the Guarantee as amended and/or supplemented up to and including the date of issue of the Instruments specified in the Final Terms (the "**Issue Date**") of the Instruments.

1. Form and Denomination

- 1.01 Instruments are issued in bearer form or in registered form, as specified in the relevant Final Terms. Instruments issued by ABB USA may only be issued in registered form, except in the case of SIS Instruments in which case such Instruments shall be issued under procedures which result in the issuance of such Instruments as being in registered form for US tax purposes. Registered Instruments are constituted by either the ABB Netherlands Deed of Covenant or the ABB USA Deed of Covenant, as the case may be. Each Holder of Instruments is subject to and bound by all the provisions contained in these Conditions.

Bearer Instruments

- 1.02 Each Tranche of Instruments issued in bearer form ("**Bearer Instruments**") will be in the denomination(s) specified in the Final Terms (the "**Specified Denomination(s)**") (**provided that** the minimum Specified Denomination shall be Euro 100,000 or its equivalent in other currencies), with Coupons and, if specified in the relevant Final Terms, Talons attached at the time of issue. In the case of a Series of Bearer Instruments with more than one Specified Denomination, Bearer Instruments of one Specified Denomination will not be exchangeable for Bearer Instruments of another Specified Denomination.

Registered Instruments

- 1.03 Each Tranche of Instruments issued in registered form ("**Registered Instruments**") will be in substantially the form (subject to amendment and completion) scheduled to the Fiscal Agency Agreement. Registered Instruments will not be exchangeable for Bearer Instruments.

Denomination of Registered Instruments

- 1.04 Registered Instruments will be in the Specified Denomination(s), which may include a minimum denomination specified in the relevant Final Terms (**provided that** the minimum Specified Denomination shall be Euro 100,000 or its equivalent in other currencies) and higher integral multiples of a smaller amount specified in the relevant Final Terms.

Currency of Instruments

- 1.05 Instruments may be denominated in any currency, subject to compliance with all applicable legal and/or regulatory requirements.
- 2. Title**
- 2.01 Title to Bearer Instruments and Coupons passes by delivery. References herein to the "**Holder**" or "**Holders**" of Bearer Instruments or of Coupons are to the bearers of such Bearer Instruments or such Coupons.
- 2.02 The Principal Registrar will maintain the register in accordance with the provisions of the Fiscal Agency Agreement. A certificate (each, a "**Certificate**") will be issued to each Holder of Registered Instruments in respect of its registered holding. Each Certificate will be numbered serially with an identifying number which will be recorded in the Register. Title to Registered Instruments passes by registration in the register which is kept by the Principal Registrar. For the purposes of these Conditions, "**Registrar**" means, in relation to any Series of Registered Instruments, the Principal Registrar. References herein to the "**Holder**" or "**Holders**" of Registered Instruments are to the persons in whose names such Registered Instruments are so registered in the relevant register (or, in the case of a joint holding, the first named thereof).
- 2.03 The Holder of any Bearer Instrument or Coupon or Registered Instrument will (except as otherwise required by applicable law or regulatory requirement) be treated as its absolute owner for all purposes (whether or not it is overdue and regardless of any notice of ownership, trust or any interest thereof or therein, any writing thereon or, in the case of Registered Instruments, on the Certificate relating thereto (other than the endorsed form of transfer) or any theft or loss thereof) and no person shall be liable for so treating such Holder. No person shall have any right to enforce any term or condition of any Instruments under the Contracts (Rights of Third Parties) Act 1999.

Transfer of Registered Instruments

- 2.04 Subject to Conditions 2.06 and 2.07 below, a Registered Instrument may, upon the terms and subject to the conditions set forth in the Fiscal Agency Agreement, be transferred in whole or in part only (**provided that** such part is a Specified Denomination) upon the surrender of the relevant Certificate, together with the form of transfer endorsed on it duly completed and executed, at the Specified Office of the Registrar, together with such evidence as the Registrar may reasonably require to prove the title of the transferor and the authority of the individuals who have executed the form of transfer. A new Certificate will be issued to the transferee and, in the case of a transfer of part only of a Registered Instrument, a new Certificate in respect of the balance not transferred will be issued to the transferor.
- 2.05 Within five business days of the surrender of a Certificate in accordance with Condition 2.04 above, the Registrar will register the transfer in question and deliver a new Certificate of a like principal amount to the Registered Instruments transferred to each relevant Holder at its Specified Office or (at the request and risk of any such relevant Holder) by uninsured first class mail (airmail if overseas) to the address specified for the purpose by such relevant Holder. In this paragraph, "**business day**" means a day on which commercial banks are open for general business (including dealings in foreign currencies) in the city where the Registrar has its Specified Office.
- 2.06 Holders may not require transfers to be registered during the period of 15 days ending on the due date for any payment of principal or interest in respect of the Registered Instruments.
- 2.07 All transfers of Registered Instruments and entries on the Register are subject to the detailed regulations concerning the transfer of Registered Instruments scheduled to the Fiscal Agency Agreement. The regulations may be changed by the Issuer with the prior written approval of the Registrar. A copy of the current regulations will be mailed (free of charge) by the Registrar to any Holder who requests in writing a copy of such regulations.
- 2.08 The transfer of a Registered Instrument will be effected without charge by or on behalf of the Issuer or the Registrar, but upon payment by the applicant of (or the giving by the applicant of such indemnity as the Issuer or the Registrar may require in respect of) any tax, duty, assessment or other governmental charge which may be imposed in relation thereto.

3. Status and Guarantee of the Instruments

Status

- 3.01 The Instruments constitute (subject to Condition 4.01) direct, unsecured and unsubordinated obligations of the Issuer and shall at all times rank *pari passu* in right of payment and without any preference among themselves. The payment obligations of the Issuer in respect of the Instruments shall (subject to Condition 4.01) at all times rank at least equally with all other present and future unsecured and unsubordinated obligations of the Issuer, other than any obligations preferred by law.

Guarantee

- 3.02 The Guarantor has in the Guarantee unconditionally and irrevocably guaranteed the due and punctual payment of all sums from time to time payable by the Issuer in respect of the Instruments issued under the Programme. The Guarantee constitutes direct, unsecured and unsubordinated obligations of the Guarantor which will at all times rank at least *pari passu* with all other present and future direct, unsecured and unsubordinated obligations of the Guarantor, save for such obligations as may be mandatorily preferred by law.

4. Covenants

Negative Pledge

- 4.01 So long as any of the Instruments remains outstanding (as defined in the Fiscal Agency Agreement), the Issuer and ABB Ltd will not, and will procure that none of the Material Subsidiaries will, create or permit to subsist any mortgage, pledge, lien, hypothecation, security interest or other charge (each a "**Security Interest**") upon any of their respective assets or revenues present or future as security for any Indebtedness of any person or to secure any guarantee given by the Issuer, ABB Ltd or any Material Subsidiary of any Indebtedness of any person, without at the same time or prior thereto securing the Instruments equally and rateably with such Indebtedness or guarantee or providing such security for the Instruments as shall be approved by an Extraordinary Resolution (being a resolution passed at a meeting of the Holders of Instruments in respect of the Instruments of the relevant Series duly convened and held in accordance with the provisions contained in the Fiscal Agency Agreement by a majority consisting of not less than three fourths of the votes cast thereon) of the Holders of the Instruments *save that* the Issuer, ABB Ltd or any Material Subsidiary may create or permit to subsist a Permitted Security Interest (without the obligation to secure or provide security as aforesaid). In this Condition 4.01 (i) any reference to any Indebtedness being guaranteed by the Issuer, ABB Ltd or any Material Subsidiary shall be deemed to include a reference to any indemnity given by the Issuer, ABB Ltd or any Material Subsidiary in respect of any Indebtedness and (ii) Indebtedness shall not include Securitisation Indebtedness.

In these Conditions:

"**ABB Group**" means ABB Ltd and its Subsidiaries;

"**Indebtedness**" means any indebtedness (whether being principal, premium or interest) for or in respect of (i) any notes, bonds, debenture stock, loan stock or other securities; or (ii) any borrowed money;

"**Material Subsidiary**" means a Subsidiary that:

- (A) is the holding company of a country (and not a region) that, together with its subsidiaries, has combined third party revenues in excess of 5 per cent. of the consolidated revenues of the ABB Group for the most recently completed fiscal year;
- (B) on a non-consolidated legal entity basis has third party revenues in excess of 10 per cent. of the consolidated revenues of the ABB Group for the most recently completed fiscal year; or

- (C) has any notes, bonds, debenture stock, loan stock or other securities outstanding to non-ABB Group third parties in respect of which a guarantee, keep-well agreement or other credit support has been provided by ABB Ltd;

provided always that for purposes of this definition, (i) third party revenues shall exclude any revenues not included in total revenues in the consolidated income statement of the ABB Group, (ii) the term "**revenues**" shall exclude any revenues attributable to activities classified by ABB Ltd as discontinued operations in the consolidated financial statements of the ABB Group, and (iii) all revenue figures shall be prepared in accordance with the generally accepted accounting principles used in the preparation of the consolidated financial statements of the ABB Group;

"Permitted Security Interest" means:

- (a) any Security Interest existing on the Issue Date of the Instruments or in the event that the Instruments are to be consolidated with an earlier Series, the Issue Date of such earlier Series;
- (b) any Security Interest arising by operation of law (or by contract having an equivalent effect) or in the ordinary course of its business;
- (c) any Security Interest on assets of a company acquired by a member of the ABB Group after the Issue Date of the Instruments or in the event that the Instruments are to be consolidated with an earlier Series, the Issue Date of such earlier Series, **provided that** (i) such Security Interest was existing or agreed to be created at or before the time the relevant company became a member of the ABB Group, (ii) such Security Interest was not created in contemplation of such acquisition, (iii) the principal amount then secured is not exceeded or increased and (iv) the then repayment date of the amount secured is not extended;
- (d) any Security Interest securing Indebtedness incurred to refinance other Indebtedness itself secured by a Security Interest included in Conditions 4.01(a) to (c) above, but only if the principal amount of the Indebtedness is not increased, other than additional Indebtedness incurred to pay fees, underwriting discounts, premiums and other costs and expenses in connection therewith, and only the same assets are secured as were secured by the prior Security Interest;
- (e) any Security Interest provided by a Material Subsidiary (other than ABB Netherlands or ABB USA, in the ordinary course of the structured finance business of ABB Ltd or such Material Subsidiary); or
- (f) any other Security Interest, but only if the aggregate Indebtedness of the ABB Group (including ABB Netherlands and ABB USA) secured by such Security Interests permitted under this Condition 4.01(f) does not at any time exceed 20 per cent. of the consolidated total assets of the ABB Group (determined in accordance with generally accepted accounting principles used in the preparation of the consolidated financial statements of the ABB Group);

"Securitisation Indebtedness" means any Indebtedness in respect of which the person or persons to whom any such money is or may be owed by the relevant borrower (whether or not a member of the ABB Group) in respect of such Indebtedness has or have no recourse whatsoever to any member of the ABB Group for the repayment thereof other than:

- (i) recourse to such borrower for amounts limited to the cash flow or net cash flow (other than historic cash flow or historic net cash flow) from an asset or assets, security over which has been created in relation to the repayment of such Indebtedness; and/or
- (ii) recourse to such borrower for the purpose only of enabling amounts to be claimed in respect of such Indebtedness in an enforcement of any encumbrance given by such borrower over such asset or assets or the income, cash flow or other proceeds deriving therefrom (or given by any shareholder or the like in the borrower over its shares or the like in the capital of the borrower) to secure the repayment of such Indebtedness, **provided that** (A) the extent of such recourse to such borrower is limited solely to the amount of

any recoveries made on any such enforcement, and (B) such person or persons are not entitled, by virtue of any right or claim arising out of or in connection with such Indebtedness, to commence proceedings for the winding up or dissolution of the borrower or to appoint or procure the appointment of any receiver, trustee or similar person or officer in respect of the borrower or any of its assets (save for the assets the subject of such encumbrance); and/or

- (iii) recourse to such borrower generally, or directly or indirectly to a member of the ABB Group, under any form of assurance, undertaking or support, which recourse is limited to a claim for damages (other than liquidated damages and damages required to be calculated in a specified way) for breach of an obligation (not being a payment obligation or an obligation to procure payment by another acting in any capacity other than as a collecting or servicing agent or an indemnity in respect thereof or an obligation to comply or to procure compliance by another with any financial ratios or other tests of financial condition) by the person against whom such recourse is available; and

"Subsidiary" means a company the financial statements of which are consolidated with those of ABB Ltd.

5. Interest

Instruments may be interest bearing or non-interest bearing, as specified in the relevant Final Terms. The Final Terms in relation to each Tranche of interest bearing Instruments shall specify which of Condition 5A, 5B, 5C or 5D shall be applicable and Condition 5E will be applicable to each Tranche of interest bearing Instruments as specified therein save, in each case, to the extent inconsistent with the relevant Final Terms.

5A *Interest—Fixed Rate*

- 5A.01 Instruments in relation to which this Condition 5A is specified in the relevant Final Terms as being applicable shall bear interest from their Issue Date or from such other date as may be specified in the relevant Final Terms (the **"Interest Commencement Date"**) at the rate or rates per annum (or otherwise) specified in the relevant Final Terms. The amount of interest payable in respect of each Instrument for any period for which a fixed coupon amount (the **"Fixed Coupon Amount"**) is not specified in the Final Terms shall be calculated by applying the rate or rates of interest (expressed as a percentage per annum) specified in the Final Terms (the **"Rate of Interest"**) to the calculation amount specified in the Final Terms (the **"Calculation Amount"**), multiplying the product by the relevant Day Count Fraction specified in the Final Terms, rounding the resulting figure to the nearest sub-unit of the specified currency (half a sub-unit being rounded upwards) and multiplying such rounded figure by a fraction equal to the specified denomination of such Instrument divided by the Calculation Amount. For this purpose a **"sub-unit"** means, in the case of any currency other than Euro, the lowest amount of such currency that is available as legal tender in the country of such currency and, in the case of Euro, means one cent. Such interest will be payable in arrear on such dates as are specified in the relevant Final Terms and on the maturity date specified in the Final Terms (the **"Maturity Date"**). Interest in respect of a period of less than one year will be calculated on the basis of the Day Count Fraction specified in the relevant Final Terms.
- 5A.02 Each Instrument will cease to bear interest from the due date for final redemption unless, upon due presentation, payment of the Redemption Amount is improperly withheld or refused, in which case it will continue to bear interest in accordance with this Condition 5A (as well after as before judgment) until whichever is the earlier of (i) the day on which all sums due in respect of such Instrument up to that day are received by or on behalf of the relevant Holder and (ii) the day which is seven days after the Fiscal Agent has notified the Holders that it has received all sums due in respect of the Instruments up to such seventh day (except to the extent that there is any subsequent default in payment).
- 5A.03 The amount of interest payable in respect of each Instrument for any Interest Period (the **"Interest Amount"**) shall be the relevant Fixed Coupon Amount and, if the Instruments are in more than one Specified Denomination, shall be the relevant Fixed Coupon Amount in respect of the relevant Specified Denomination.

5B Interest—Floating Rate

- 5B.01 Instruments in relation to which this Condition 5B is specified in the relevant Final Terms as being applicable, shall bear interest at the rate or rates per annum (or otherwise) determined in accordance with this Condition 5B. Condition 5E and Condition 5F shall apply to Instruments to which this Condition 5B applies.
- 5B.02 Such Instruments shall bear interest from their Interest Commencement Date. Such interest will be payable on each Interest Payment Date (as defined in Condition 5E.02) and on the Maturity Date. Each Instrument will cease to bear interest from the due date for final redemption unless, upon due presentation, payment of the Redemption Amount is improperly withheld or refused, in which case it will continue to bear interest in accordance with this Condition (as well after as before judgment) until whichever is the earlier of (i) the day on which all sums due in respect of such Instrument up to that day are received by or on behalf of the relevant Holder and (ii) the day which is seven days after the Fiscal Agent has notified the Holders that it has received all sums due in respect of the Instruments up to such seventh day (except to the extent that there is any subsequent default in payment).
- 5B.03 The Final Terms in relation to each Series of Instruments in relation to which this Condition 5B is specified as being applicable shall specify which page (the "**Relevant Screen Page**") on Reuters or any other information vending service shall be applicable (or such other services or service as may be nominated as the information vendor for the purpose of displaying comparable rates in succession thereto).
- 5B.04 The Rate of Interest applicable to such Instruments for each Interest Period (as defined in Condition 5E.02) shall be determined by the Determination Agent (as defined in Condition 5E.05) on the following basis (subject to Condition 5F):
- (i) the Determination Agent will determine the rate for deposits (or, as the case may require, the arithmetic mean (rounded, if necessary, to the nearest ten thousandth of a percentage point, .00005 being rounded upwards) of the rates for deposits) in the relevant currency for a period of the duration of the relevant Interest Period on the Relevant Screen Page as of 11.00 a.m. (London time) two London Banking Days (or, in the case of Instruments denominated in Euro, two TARGET Business Days (as defined below)), before (or, if so specified in the relevant Final Terms, on) the first day of the relevant Interest Period or, if so specified in the relevant Final Terms, as of such time on such day as may be conventional in respect of the currency in which the Instruments are denominated (the "**Interest Determination Date**");
 - (ii) if, on any Interest Determination Date, no such rate for deposits so appears (or, as the case may be, if fewer than two such rates for deposits so appear) or if the Relevant Screen Page is unavailable, the Determination Agent will request appropriate quotations and will determine the arithmetic mean (rounded as aforesaid) of the rates at which deposits in the relevant currency are offered by four major banks in the London interbank market, (or, in the case of Instruments denominated or payable in Euro and where the Final Terms specifies an Interest Rate referable to EUR-EURIBOR, the Euro Zone interbank market), selected by the Determination Agent, at approximately 11.00 a.m. (London time) on the Interest Determination Date to prime banks in the London interbank market (or, in the case of Instruments denominated or payable in Euro and where the Final Terms specifies an Interest Rate referable to EUR-EURIBOR, the Euro Zone interbank market) for a period of the duration of the relevant Interest Period and in an amount that is representative for a single transaction in the relevant market at the relevant time;
 - (iii) if, on any Interest Determination Date, only two or three rates are so quoted (as referred to in Condition 5B.04(ii)), the Determination Agent will determine the arithmetic mean (rounded as aforesaid) of the rates so quoted; or
 - (iv) if fewer than two rates are so quoted (as referred to in Condition 5B.04(ii)), the Determination Agent will determine the arithmetic mean (rounded as aforesaid) of the rates quoted by four major banks in the Relevant Financial Centre (as defined in Condition 9C.03) (or, in the case of Instruments denominated in Euro, in such financial centre or

centres as the Determination Agent may select) selected by the Determination Agent, at approximately 11.00 a.m. (Relevant Financial Centre time (or local time at such other financial centre or centres as aforesaid)) on the first day of the relevant Interest Period for loans in the relevant currency to leading European banks for a period of the duration of the relevant Interest Period and in an amount that is representative for a single transaction in the relevant market at the relevant time,

and the Rate of Interest applicable to such Instruments during each Interest Period will be the sum of the relevant margin (the "**Relevant Margin**") specified in the relevant Final Terms and the rate (or, as the case may be, the arithmetic mean of rates) so determined **provided, however, that**, if the Determination Agent is unable to determine a rate (or, as the case may be, an arithmetic mean of rates) in accordance with the above provisions in relation to any Interest Period, the Rate of Interest applicable to such Instruments during such Interest Period will be the sum of the Relevant Margin and the rate (or as the case may be, the arithmetic mean of rates) determined in relation to such Instruments in respect of the last preceding Interest Period **provided always that** if there is specified in the relevant Final Terms a minimum interest rate or a maximum interest rate then the Rate of Interest shall in no event be less than or, as the case may be, exceed it. For the purposes of these Conditions, "**Euro Zone**" means the zone comprising the Member States of the European Union which adopt or have adopted the Euro as their lawful currency in accordance with the Treaty establishing the European Communities, as amended, "**London Banking Day**" means a day on which commercial banks are open for general business (including dealings in foreign exchange and foreign currency deposits) in London and, "**TARGET Business Day**" means a day on which the Trans European Automated Real-Time Gross Settlement Express Transfer payment system which utilises a single shared platform and which was launched on November 19, 2007 (the "**TARGET 2 System**") is open as defined in the ISDA Definitions (see below).

5C **Interest—ISDA Determination**

If ISDA Determination is specified in the relevant Final Terms as the manner in which the Rate(s) of Interest is/are to be determined, the Rate of Interest applicable to the Instruments for each Interest Period will be the sum of the Margin and the relevant ISDA Rate where "**ISDA Rate**" in relation to any Interest Period means a rate equal to the Floating Rate (as defined in the ISDA Definitions) that would be determined by the Determination Agent under an interest rate swap transaction if the Determination Agent were acting as Determination Agent for that interest rate swap transaction under the terms of an agreement incorporating the ISDA Definitions and under which:

- (i) the Floating Rate Option (as defined in the ISDA Definitions) is as specified in the relevant Final Terms;
- (ii) the Designated Maturity (as defined in the ISDA Definitions) is a period specified in the relevant Final Terms; and
- (iii) the relevant Reset Date (as defined in the ISDA Definitions) is either (A) if the relevant Floating Rate Option is based on the London inter-bank offered rate (LIBOR) for a currency, the first day of that Interest Period or (B) in any other case, as specified in the relevant Final Terms."

In these Conditions, "**ISDA Definitions**" means the 2006 ISDA Definitions (as amended and updated as at the date of issue of the first Tranche of the Instruments of the relevant Series (as specified in the relevant Final Terms) as published by the International Swaps and Derivatives Association, Inc.) or, if so specified in the relevant Final Terms, the 2000 ISDA Definitions (as amended and updated as at the date of issue of the first Tranche of the Instruments of the relevant Series (as specified in the relevant Final Terms) as published by the International Swaps and Derivatives Association, Inc.).

5D **Interest—Other Rates**

Instruments in relation to which this Condition 5D is specified in the relevant Final Terms as being applicable shall bear interest at the rate or rates calculated on the basis specified in, and be payable in the amounts and in the manner determined in accordance with, the relevant Final Terms.

5E *Interest—Supplemental Provisions*

5E.01 Conditions 5E.02, 5E.03, 5E.04 and 5E.05 shall be applicable (as appropriate) in relation to all Instruments which are interest bearing.

Interest Payment Date Conventions

5E.02 The Final Terms in relation to each Series of Instruments in relation to which this Condition 5E.02 applies or is specified as being applicable shall specify which of the following business day conventions ("**Business Day Conventions**") shall be applicable, namely:

- (i) the "**FRN Convention**" or "**Eurodollar Convention**", in which case interest shall be payable in arrear on each date (each an "**Interest Payment Date**") which numerically corresponds to their Interest Commencement Date or such other date as may be specified in the relevant Final Terms or, as the case may be, the preceding Interest Payment Date in the calendar month which is the number of months specified in the relevant Final Terms after the calendar month in which such Interest Commencement Date or such other date as aforesaid or, as the case may be, the preceding Interest Payment Date occurred **provided that:**
 - (a) if there is no such numerically corresponding day in the calendar month in which an Interest Payment Date should occur, then the relevant Interest Payment Date will be the last day which is a Business Day (as defined in Condition 9C.03) in that calendar month;
 - (b) if an Interest Payment Date would otherwise fall on a day which is not a Business Day, then the relevant Interest Payment Date will be the first following day which is a Business Day unless that day falls in the next calendar month, in which case it will be the first preceding day which is a Business Day; and
 - (c) if such Interest Commencement Date or such other date as aforesaid or the preceding Interest Payment Date occurred on the last day in a calendar month which was a Business Day, then all subsequent Interest Payment Dates will be the last day which is a Business Day in the calendar month which is the specified number of months after the calendar month in which such Interest Commencement Date or such other date as aforesaid or, as the case may be, the preceding Interest Payment Date occurred;
- (ii) the "**Following Business Day Convention**", in which case such date shall be postponed to the first following day that is a Business Day (each an "**Interest Payment Date**");
- (iii) the "**Modified Following Business Day Convention**" or "**Modified Business Day Convention**", in which case interest shall be payable in arrear on such dates (each an "**Interest Payment Date**") as are specified in the relevant Final Terms **provided that**, if any Interest Payment Date would otherwise fall on a date which is not a Business Day, the relevant Interest Payment Date will be the first following day which is a Business Day unless that day falls in the next calendar month, in which case the relevant Interest Payment Date will be the first preceding day which is a Business Day; or
- (iv) such other convention as may be specified in the relevant Final Terms.

Each period beginning on (and including) such Interest Commencement Date or such other date as aforesaid and ending on (but excluding) the first Interest Payment Date and each period beginning on (and including) an Interest Payment Date and ending on (but excluding) the next Interest Payment Date is herein called an "**Interest Period**".

Notification of Rates of Interest, Interest Amounts and Interest Payment Dates

5E.03 The Determination Agent will, as soon as practicable after the time at which the Rate of Interest is to be determined in relation to each Interest Period, calculate the Interest Amount payable in respect of each Instrument for such Interest Period. The Interest Amount will be calculated by applying the Rate of Interest for such Interest Period to the Calculation Amount, multiplying the product by

the relevant Day Count Fraction, rounding the resulting figure to the nearest sub-unit of the specified currency (the "**Specified Currency**") (half a sub-unit being rounded upwards) and multiplying such rounded figure by a fraction equal to the Specified Denomination of the relevant Instrument divided by the Calculation Amount. For this purpose a "**sub-unit**" means, in the case of any currency other than Euro, the lowest amount of such currency that is available as legal tender in the country of such currency and, in the case of Euro, means one cent.

- 5E.04 The Determination Agent will cause each Rate of Interest, floating rate, Interest Payment Date, final day of a calculation period, Interest Amount, floating amount or other amounts, as the case may be, determined or calculated by it to be notified to the Issuer and the Fiscal Agent. The Fiscal Agent will cause all such determinations or calculations to be notified to the other Paying Agents and, in the case of Registered Instruments, the Registrar (from whose respective Specified Offices such information will be available) and, in the case of Instruments which are admitted to listing, trading and/or quotation on any listing authority, stock exchange and/or quotation system, to such listing authority, stock exchange and/or quotation system, in each case, as soon as practicable after such determination or calculation but in any event not later than the first day of the relevant Interest Period. Notice thereof shall also promptly be given to the Holders. The Determination Agent will be entitled to amend any Interest Amount, floating amount, Interest Payment Date or final day of a calculation period (or to make appropriate alternative arrangements by way of adjustment) without prior notice in the event of the extension or abbreviation of any relevant Interest Period or calculation period and such amendment will be notified in accordance with the first two sentences of this Condition 5E.04. If the Calculation Amount is less than the minimum Specified Denomination the Determination Agent shall not be obliged to publish each Interest Amount but instead may publish only the Calculation Amount and the Interest Amount in respect of an Instrument having the minimum Specified Denomination.
- 5E.05 The determination by the Determination Agent of all items to be determined by it shall, in the absence of manifest error, be final and binding on all parties. As used herein, the "**Determination Agent**" means the Fiscal Agent or such other agent as may be specified in the relevant Final Terms.

Day Count Fraction

- 5E.06 "**Day Count Fraction**" means, in respect of the calculation of an amount for any period of time ("**Calculation Period**"), such day count fraction as may be specified in the Final Terms and:
- (i) if "**Actual/Actual (ICMA)**" is so specified, means:
 - (a) where the Calculation Period is equal to or shorter than the Regular Period during which it falls, the actual number of days in the Calculation Period divided by the product of (1) the actual number of days in such Regular Period and (2) the number of Regular Periods normally ending in any year; and
 - (b) where the Calculation Period is longer than one Regular Period, the sum of:
 - (A) the actual number of days in such Calculation Period falling in the Regular Period in which it begins divided by the product of (1) the actual number of days in such Regular Period and (2) the number of Regular Periods in any year; and
 - (B) the actual number of days in such Calculation Period falling in the next Regular Period divided by the product of (1) the actual number of days in such Regular Period and (2) the number of Regular Periods normally ending in any year;

"**Regular Period**" means:

- (a) in the case of Instruments where interest is scheduled to be paid only by means of regular payments, each period from and including the Interest Commencement Date to but excluding the first Interest Payment Date and each successive period from and including one Interest Payment Date to but excluding the next Interest Payment Date;

- (b) in the case of Instruments where, apart from the first Interest Period, interest is scheduled to be paid only by means of regular payments, each period from and including a Regular Date falling in any year to but excluding the next Regular Date, where "**Regular Date**" means the day and month (but not the year) on which any Interest Payment Date falls;
- (c) in the case of Instruments where, apart from one Interest Period other than the first Interest Period, interest is scheduled to be paid only by means of regular payments, each period from and including a Regular Date falling in any year to but excluding the next Regular Date, where "**Regular Date**" means the day and months (but not the year) on which any Interest Payment Date falls other than the Interest Payment Date falling at the end of the irregular Interest Period.
- (ii) if "**Actual/Actual (ISDA)**" is so specified, means the actual number of days in the Calculation Period divided by 365 (or, if any portion of the Calculation Period falls in a leap year, the sum of (A) the actual number of days in that portion of the Calculation Period falling in a leap year divided by 366 and (B) the actual number of days in that portion of the Calculation Period falling in a non-leap year divided by 365);
- (iii) if "**Actual/365 (Fixed)**" is so specified, means the actual number of days in the Calculation Period divided by 365;
- (iv) if "**Actual/360**" is so specified, means the actual number of days in the Calculation Period divided by 360;
- (v) if "**30/360**" is so specified, the number of days in the Calculation Period divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

- "**Y₁**" is the year, expressed as a number, in which the first day of the Calculation Period falls;
- "**Y₂**" is the year, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;
- "**M₁**" is the calendar month, expressed as a number, in which the first day of the Calculation Period falls;
- "**M₂**" is the calendar month, expressed as number, in which the day immediately following the last day included in the Calculation Period falls;
- "**D₁**" is the first calendar day, expressed as a number, of the Calculation Period, unless such number would be 31, in which case D₁ will be 30;
- "**D₂**" is the calendar day, expressed as a number, immediately following the last day included in the Calculation Period, unless such number would be 31 and D₁ is greater than 29, in which case D₂ will be 30";
- (vi) if "**30E/360**" or "**Eurobond Basis**" is so specified, the number of days in the Calculation Period divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

- "**Y₁**" is the year, expressed as a number, in which the first day of the Calculation Period falls;

"Y₂" is the year, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

"M₁" is the calendar month, expressed as a number, in which the first day of the Calculation Period falls;

"M₂" is the calendar month, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

"D₁" is the first calendar day, expressed as a number, of the Calculation Period, unless such number would be 31, in which case D₁ will be 30; and

"D₂" is the calendar day, expressed as a number, immediately following the last day included in the Calculation Period, unless such number would be 31, in which case D₂ will be 30; and

(vii) if "30E/360 (ISDA)" is so specified, the number of days in the Calculation Period divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

"Y₁" is the year, expressed as a number, in which the first day of the Calculation Period falls;

"Y₂" is the year, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

"M₁" is the calendar month, expressed as a number, in which the first day of the Calculation Period falls;

"M₂" is the calendar month, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

"D₁" is the first calendar day, expressed as a number, of the Calculation Period, unless (i) that day is the last day of February or (ii) such number would be 31, in which case D₁ will be 30; and

"D₂" is the calendar day, expressed as a number, immediately following the last day included in the Calculation Period, unless (i) that day is the last day of February but not the Maturity Date or (ii) such number would be 31, in which case D₂ will be 30,

provided, however, that in each such case the number of days in the Calculation Period is calculated from and including the first day of the Calculation Period to but excluding the last day of the Calculation Period.

5F ***Benchmark replacement***

Notwithstanding the provisions above in this Condition 5, if the Issuer (in consultation with the Determination Agent (or the person specified in the applicable Final Terms as the party responsible for calculating the Rate of Interest and the Interest Amount(s)) determines that a Benchmark Event has occurred when any Rate of Interest (or the relevant component part thereof) remains to be determined by reference to a Reference Rate, then the following provisions shall apply:

(i) the Issuer shall use reasonable endeavours to appoint an Independent Adviser for the determination (with the Issuer's agreement) of a Successor Rate or, alternatively, if the Independent Adviser and the Issuer agree that there is no Successor Rate, an alternative rate (the "**Alternative Benchmark Rate**") and, in either case, an alternative screen page or source (the "**Alternative Relevant Screen Page**") and an Adjustment Spread (if applicable) no later than three (3) Business Days prior to the relevant Interest

Determination Date relating to the next succeeding Interest Period (the "**IA Determination Cut-off Date**") for purposes of determining the Rate of Interest applicable to the Instruments for all future Interest Periods (subject to the subsequent operation of this Condition 5F);

- (ii) the Alternative Benchmark Rate shall be such rate as the Independent Adviser and the Issuer acting in good faith agree has replaced the relevant Reference Rate in customary market usage for the purposes of determining floating rates of interest in respect of eurobonds denominated in the Specified Currency, or, if the Independent Adviser and the Issuer agree that there is no such rate, such other rate as the Independent Adviser and the Issuer acting in good faith agree is most comparable to the relevant Reference Rate, and the Alternative Relevant Screen Page shall be such page of an information service as displays the Alternative Benchmark Rate;
- (iii) if the Issuer is unable to appoint an Independent Adviser, or if the Independent Adviser and the Issuer cannot agree upon, or cannot select a Successor Rate or an Alternative Benchmark Rate and Alternative Relevant Screen Page prior to the IA Determination Cut-off Date in accordance with sub-paragraph (ii) above, then the Issuer (acting in good faith and in a commercially reasonable manner) may determine which (if any) rate has replaced the relevant Reference Rate in customary market usage for purposes of determining floating rates of interest in respect of eurobonds denominated in the Specified Currency, or, if it determines that there is no such rate, which (if any) rate is most comparable to the relevant Reference Rate, and the Alternative Benchmark Rate shall be the rate so determined by the Issuer and the Alternative Relevant Screen Page shall be such page of an information service as displays the Alternative Benchmark Rate; *provided, however*, that if this sub-paragraph (iii) applies and the Issuer is unable or unwilling to determine an Alternative Benchmark Rate and Alternative Relevant Screen Page prior to the Interest Determination Date relating to the next succeeding Interest Period in accordance with this sub-paragraph (iii), the Reference Rate applicable to such Interest Period shall be equal to the Reference Rate for a term equivalent to the Relevant Interest Period published on the Relevant Screen Page as at the last preceding Interest Determination Date (including a LIBOR Interest Determination Date or a EURIBOR Interest Determination Date) (as applicable);
- (iv) if a Successor Rate or an Alternative Benchmark Rate and an Alternative Relevant Screen Page is determined in accordance with the preceding provisions, such Successor Rate or Alternative Benchmark Rate and Alternative Relevant Screen Page shall be the benchmark and the Relevant Screen Page in relation to the Instruments for all future Interest Periods (subject to the subsequent operation of this Condition 5F);
- (v) if the Issuer, following consultation with the Independent Adviser and acting in good faith, determines that (A) an Adjustment Spread is required to be applied to the Successor Rate or Alternative Benchmark Rate and (B) the quantum of, or a formula or methodology for determining, such Adjustment Spread, then such Adjustment Spread shall be applied to the Successor Rate or Alternative Benchmark Rate for each subsequent determination of a relevant Rate of Interest and Interest Amount(s) (or a component part thereof) by reference to such Successor Rate or Alternative Benchmark Rate;
- (vi) if a Successor Rate or an Alternative Benchmark Rate and/or Adjustment Spread is determined in accordance with the above provisions, the Independent Adviser (with the Issuer's agreement) or the Issuer (as the case may be), may also specify changes to the Day Count Fraction, Business Day Convention, Business Days, Interest Determination Date and/or the definition of Reference Rate applicable to the Instruments, and the method for determining the fallback rate in relation to the Instruments, in order to follow market practice in relation to the Successor Rate or Alternative Benchmark Rate and/or Adjustment Spread, which changes shall apply to the Instruments for all future Interest Periods (subject to the subsequent operation of this Condition 5F); and
- (vii) the Issuer shall promptly following the determination of any Successor Rate or Alternative Benchmark Rate and Alternative Relevant Screen Page and Adjustment Spread (if any)

give notice thereof and of any changes pursuant to sub-paragraph (vi) above to the Determination Agent, the Fiscal Agent and the holders of Instruments.

For the purposes of these Conditions,

"Adjustment Spread" means either a spread (which may be positive or negative) or a formula or methodology for calculating a spread, which the Issuer, following consultation with the Independent Adviser and acting in good faith, determines should be applied to the relevant Successor Rate or the relevant Alternative Benchmark Rate (as applicable), as a result of the replacement of the relevant Reference Rate with the relevant Successor Rate or the relevant Alternative Benchmark Rate (as applicable), and is the spread, formula or methodology which:

- (A) in the case of a Successor Rate, is recommended or formally provided as an option for parties to adopt, in relation to the replacement of the Reference Rate with the Successor Rate by any Relevant Nominating Body; or
- (B) in the case of a Successor Rate for which no such recommendation has been made, or option provided, or in the case of an Alternative Benchmark Rate, the spread, formula or methodology which the Issuer, following consultation with the Independent Adviser and acting in good faith, determines to be appropriate in order to reduce or eliminate, to the fullest extent reasonably practicable in the circumstances, any economic prejudice or benefit (as the case may be) to Holders as a result of the replacement of the Reference Rate with the Successor Rate or Alternative Benchmark Rate (as applicable);

"Benchmark Event" means:

- (A) the relevant Reference Rate has ceased to be published on the Relevant Screen Page as a result of such benchmark ceasing to be calculated or administered; or
- (B) a public statement by the administrator of the relevant Reference Rate that it will cease publishing such Reference Rate permanently or indefinitely (in circumstances where no successor administrator has been appointed that will continue publication of such Reference Rate); or
- (C) a public statement by the supervisor of the administrator of the relevant Reference Rate that such Reference Rate has been or will be permanently or indefinitely discontinued; or
- (D) a public statement by the supervisor of the administrator of the relevant Reference Rate that means that such Reference Rate will be prohibited from being used or that its use will be subject to restrictions or adverse consequences; or
- (E) a public statement by the supervisor of the administrator of the relevant Reference Rate that, in the view of such supervisor, such Reference Rate is no longer representative of an underlying market or the methodology to calculate such Reference Rate has materially changed; or
- (F) it has or will become unlawful for the Determination Agent or the Issuer to calculate any payments due to be made to any Noteholder using the relevant Reference Rate (including, without limitation, under the Benchmarks Regulation (EU) 2016/1011, if applicable).

"Independent Adviser" means an independent financial institution of international repute or other independent financial adviser experienced in the international capital markets, in each case appointed by the Issuer at its own expense;

"Relevant Nominating Body" means, in respect of a benchmark or screen rate (as applicable): (i) the central bank for the currency to which the benchmark or screen rate (as applicable) relates, or any central bank or other supervisory authority which is responsible for supervising the administrator of the benchmark or screen rate (as applicable); or (ii) any working group or committee sponsored by, chaired or co-chaired by or constituted at the request of (a) the central bank for the currency to which the benchmark or screen rate (as applicable) relates, (b) any central bank or other supervisory authority which is responsible for supervising the administrator of the

benchmark or screen rate (as applicable), (c) a group of the aforementioned central banks or other supervisory authorities or (d) the Financial Stability Board or any part thereof;

"Successor Rate" means the reference rate (and related alternative screen page or source, if available) that the Independent Adviser (with the Issuer's agreement) determines is a successor to or replacement of the relevant Reference Rate which is formally recommended by any Relevant Nominating Body;

6. Redemption and Purchase

Redemption at Maturity

6.01 Unless previously redeemed, or purchased and cancelled, each Instrument shall be redeemed at its maturity redemption amount (the **"Final Redemption Amount"**, which shall be its principal amount or such other amount as may be specified in or determined in accordance with the relevant Final Terms) on the Maturity Date, subject as provided in Condition 9 (*Payments*).

Early Redemption for Taxation Reasons

6.02 If, in relation to any Series of Instruments, as a result of any amendment to or change in or in the official interpretation or administration of the laws, regulations or rulings of their jurisdiction of incorporation or, in any case, of any political subdivision thereof or any authority therein or thereof having power to tax which becomes effective on or after the date of issue of the first Tranche of such Instruments or such other date as may be specified in the relevant Final Terms, the Issuer or (as the case may be) the Guarantor (if a payment were to be made under the Guarantee) would be required, for reasons outside its control, and after making such endeavours as may be reasonable to avoid such requirement, to make any withholding or deduction referred to in Condition 8.01, the Issuer may at its option, at any time, on giving not more than 60 nor less than 30 days' notice to the Holders of Instruments in accordance with Condition 14 (which notice shall be irrevocable), redeem all, but not some only, of the outstanding Instruments comprising the relevant Series at their early tax redemption amount (the **"Early Redemption Amount (Tax)"**), which shall be their principal amount or, in the case of any original issue discount Instruments, the issue price of such Instruments on their original issuance plus accrued original issue discount to but, excluding the date fixed for redemption or such other redemption amount as may be specified in or determined in accordance with the relevant Final Terms), together with accrued interest (if any) thereon to but excluding the date fixed for redemption and any additional amounts payable under Condition 8.01 **provided that** no such notice of redemption shall be given earlier than (i) where the Instruments may be redeemed at any time, 90 days prior to the earliest date on which the Issuer or (as the case may be) the Guarantor would be obliged to pay such additional amounts if a payment in respect of the Instruments or (as the case may be) a payment under the Guarantee were then due; or (ii) where the Instruments may be redeemed only on an Interest Payment Date, 60 days prior to the Interest Payment Date occurring immediately before the earliest date on which the Issuer or the Guarantor (as the case may be) would be obliged to pay such additional amounts if a payment in respect of the Instruments or (as the case may be) a payment under the Guarantee were then due. Prior to the publication of any notice of redemption pursuant to this Condition 6.02, the Issuer shall deliver or procure there to be delivered to the Fiscal Agent a certificate signed by two directors (or, as the case may be, managing directors or other members of the governing body) of the Issuer stating that the obligation to make any such withholding or deduction cannot be avoided by the Issuer or (as the case may be) the Guarantor taking reasonable measures available to it.

Optional Early Redemption (Call)

6.03 If this Condition 6.03 is specified in the relevant Final Terms as being applicable (the **"Call Option"**), then the Issuer may, on giving not more than 60 nor less than 30 days' notice and subject to such conditions as may be specified in the relevant Final Terms, redeem all (but not, unless and to the extent that the relevant Final Terms specifies otherwise, some only) of the Instruments at their call early redemption amount (the **"Optional Redemption Amount (Call)"**), which shall be their principal amount or, in the case of any original issue discount Instruments, the issue price of such Instruments on their original issuance plus accrued original issue discount to but excluding the date fixed for redemption (the **"Optional Redemption Date (Call)"**) or such other call early redemption amount as may be specified in or determined in accordance with the relevant Final

Terms), together with accrued interest (if any) thereon to but excluding the date fixed for redemption.

Where "**Make Whole Amount**" is specified in the Final Terms the Optional Redemption Amount (Call) shall be the higher of:

- (i) the outstanding principal amount of the Instruments to be redeemed; and
- (ii) the outstanding principal amount of the Instruments to be redeemed multiplied by the price (as reported in writing to the Issuer by any international financial institution or international credit institution appointed by the Issuer to act as financial adviser (the "**Financial Adviser**") expressed as a percentage and rounded to the next higher one ten-thousandth of a percentage point (0.0001 per cent.) at which the Gross Redemption Yield on the Instrument is equal to the Gross Redemption Yield at the Quotation Time on the Determination Date of the Reference Bond (or, where the Financial Adviser advises the Issuer that, for reasons of illiquidity or otherwise, such Reference Bond is not appropriate for such purpose, such other government stock as such Financial Adviser may recommend) plus the Redemption Margin,

together with interest accrued to but excluding the relevant Optional Redemption Date.

"**Determination Date**" has the meaning specified in the Final Terms.

"**Gross Redemption Yield**" means a yield calculated in accordance with generally accepted market practice at such time, as advised to the Issuer by the Financial Adviser.

"**Quotation Time**" has the meaning specified in the Final Terms.

"**Redemption Margin**" has the meaning specified in the Final Terms.

"**Reference Bond**" has the meaning specified in the Final Terms.

6.04 The notice referred to in Condition 6.03 is a notice given by the Issuer to the Fiscal Agent, the Registrar (in the case of Registered Instruments) and the Holders of the Instruments of the relevant Series, which notice shall be signed by two duly authorised officers of the Issuer and shall specify:

- (i) the Series of Instruments subject to redemption;
- (ii) whether such Series is to be redeemed in whole or in part only and, if in part only, the aggregate principal amount of the Instruments of the relevant Series which are to be redeemed; and
- (iii) the due date for such redemption shall be a Business Day (as defined in Condition 9C.03).

Any such notice shall be irrevocable, and the delivery thereof shall oblige the Issuer to make the redemption therein specified.

Partial Redemption

6.05 If the Instruments of a Series are to be redeemed in part only on any date in accordance with Condition 6.03, in the case of Bearer Instruments, the Instruments to be redeemed shall be selected by the drawing of lots in such European city as the Fiscal Agent may specify, or identified in such other manner or in such other place as the Fiscal Agent may approve and deem appropriate and fair, subject always to compliance with all applicable laws and the requirements of any competent authority, stock exchange and/or quotation system (if any) by which the Instruments have then been admitted to listing, trading and/or quotation and the notice to Holders referred to in Condition 6.03 (*Optional Early Redemption (Call)*) shall specify the serial numbers of the Instruments so to be redeemed, and, in the case of Registered Instruments, each Instrument shall be redeemed in part in the proportion which the aggregate principal amount of the outstanding Instruments to be redeemed on the relevant Optional Redemption Date (Call) bears to the aggregate principal amount of outstanding Instruments on such date. If any maximum Redemption Amount or minimum Redemption Amount is specified in the relevant Final Terms, then the Optional Redemption

Amount (Call) shall in no event be greater than the maximum or be less than the minimum so specified.

Optional Early Redemption (Put)

6.06 If this Condition 6.06 is specified in the relevant Final Terms as being applicable, then the Issuer shall, upon the exercise of the relevant option (the "**Put Option**") by the Holder of any Instrument redeem such Instrument on the date or the next of the dates specified in the relevant Final Terms (the "**Optional Early Redemption Date (Put)**") at its put early redemption amount (the "**Optional Redemption Amount (Put)**", which shall be its principal amount or, in the case of any original issue discount Instruments, the issue price of such Instruments on their original issuance plus accrued original issue discount to but excluding the Optional Early Redemption Date (Put) or such other put early redemption amount as may be specified in or determined in accordance with the relevant Final Terms) together with accrued interest (if any) thereon to but excluding the Optional Early Redemption Date (Put). In order to exercise the Put Option, the Holder must, not less than 45 days before the Optional Early Redemption Date (Put), deposit the relevant Instrument (together with any unmatured Coupons appertaining thereto) with, in the case of a Bearer Instrument, any Paying Agent or, in the case of a Registered Instrument, the Registrar together with a duly completed redemption notice (the "**Put Option Notice**") in the form which is available from the specified office of any of the Paying Agents or, as the case may be, the Registrar. The Paying Agent or, as the case may be, the Registrar, with which an Instrument is so deposited shall deliver a duly completed receipt (a "**Put Option Receipt**") to the depositing Holder. No Instrument, once deposited with a duly completed Put Option Notice in accordance with this Condition 6.06, may be withdrawn; **provided, however, that** if, prior to the relevant Optional Redemption Date (Put), any such Instrument becomes immediately due and payable or, upon due presentation of any such Instrument on the relevant Optional Redemption Date (Put), payment of the redemption moneys is improperly withheld or refused, the relevant Paying Agent shall mail notification thereof to the depositing Holder at such address as may have been given by such Holder in the relevant Put Option Notice and shall hold such Instrument at its specified office for collection by the depositing Holder against surrender of the relevant Put Option Receipt. For so long as any outstanding Instrument is held by a Paying Agent in accordance with this Condition 6.06, the depositor of such Instrument and not such Paying Agent shall be deemed to be the Holder of such Instrument for all purposes.

Purchase of Instruments

6.07 The Issuer, the Guarantor or any of its affiliated companies may at any time purchase Instruments in the open market or otherwise and at any price **provided that** any unmatured Coupons appertaining thereto are attached or surrendered therewith. Any Instruments purchased in accordance with this Condition 6.07 may, at the option of the purchaser thereof, be cancelled or resold. If purchases are made by public tender, such tender must be available to all Holders of Instruments alike.

Cancellation of Redeemed Instruments

6.08 Except as provided for in Condition 6.07, all Instruments redeemed in accordance with this Condition 6 (**provided that**, in the case of interest bearing Instruments, all unmatured Coupons appertaining thereto are attached or surrendered therewith) will be cancelled and may not be reissued or resold.

Redemption Amount

6.09 For the purposes of these Conditions:

- (i) "**Redemption Amount**" means, as appropriate, the Final Redemption Amount, the Early Redemption Amount (Tax), the Optional Redemption Amount (Call), the Optional Redemption Amount (Put), the Early Termination Amount or such other amount in the nature of a redemption amount as may be specified in, or determined in accordance with the provisions of, the relevant Final Terms; and

- (ii) "**Early Termination Amount**" means, in respect of any Instrument, its principal amount or such other amount as may be specified in, or determined in accordance with, these Conditions or the relevant Final Terms.

7. Events of Default

7.01 Unless otherwise specified in the relevant Final Terms, if any of the following events or circumstances (each an "**Event of Default**") occur in relation to the Instruments, namely:

- (i) ***Non-payment***

default is made in any payment of principal or interest due in respect of any Instrument for a period of more than 21 days after the date on which the same shall have become due and payable; or

- (ii) ***Breach of Other Obligations***

the Issuer defaults in the performance or observance of any of its other obligations under the Instruments, which default continues for 90 days after written notice requiring such default to be remedied shall have been given by the Holder of any Instrument to the Issuer at the specified office of the Fiscal Agent; or the Guarantor defaults in the performance or observance of any of its other obligations set out in the Guarantee which default continues for 90 days after written notice requiring such default to be remedied shall have been given by the Holder of any Instrument to the Guarantor at the Specified Office of the Fiscal Agent; or

- (iii) ***Cross Default***

the Issuer, ABB Ltd or any Material Subsidiary fails to pay, when due, either at final stated maturity (if the failure lasts for more than 30 calendar days), upon redemption, upon exercise of a repurchase right, upon acceleration or otherwise, any Indebtedness for money borrowed by the Issuer, ABB Ltd or any Material Subsidiary in excess of U.S.\$100,000,000 principal amount under any bond, debenture, note or other evidence of Indebtedness, or a default under any such bond, debenture, note or other evidence of Indebtedness has resulted in the acceleration prior to the final stated maturity of the principal amount thereof in excess of U.S.\$100,000,000; or

- (iv) ***Bankruptcy, Insolvency or Reorganisation***

- (1) where ABB Netherlands is the Issuer:

- (a) ABB Netherlands is adjudicated to be bankrupt or unable to pay its debts as they fall due or applies for a *surséance van betaling* or *faillissement* (within the meaning of the Bankruptcy Act of The Netherlands) in respect of itself or the whole or any part of its undertaking, property, assets or revenues or takes any proceeding under any law for a readjustment or deferment of its obligations or any part of them or makes or enters into a general assignment or an arrangement or composition with or for the benefit of its creditors or stops or threatens to cease to carry on its business or any substantial part of its business; or

- (b) an order is made or an effective resolution passed for the winding-up of ABB Netherlands; or

- (2) where ABB USA is the Issuer:

- (a) ABB USA is adjudicated to be bankrupt or is unable to pay its debts as they mature or an application is made by ABB USA under any applicable liquidation, insolvency, composition, reorganisation or similar laws for the appointment of an administrative or other receiver, manager, administrator or other similar official in respect of ABB USA or the whole or any part of the undertaking, property, assets or revenues of ABB

- USA or ABB USA takes any proceeding under any applicable law for a readjustment or deferment of its obligations or any part of them or makes or enters into a general assignment or an arrangement or composition with or for the benefit of its creditors or stops or threatens to cease to carry on its business or any substantial part of its business; or
- (b) an order is made or an effective resolution passed for the winding-up of ABB USA;
- (3) in the case of ABB Ltd:
- (a) ABB Ltd becomes insolvent or is unable to pay its debts as they mature, stops or suspends payment of all or a material part of its debts, proposes or makes a stay of execution, a postponement of payments (*Stillhaltevereinbarung*) or ABB Ltd takes any proceeding under any applicable law for a readjustment or deferment of its obligations or any part of them or makes or enters into a general assignment or an arrangement or composition with or for the benefit of its creditors or stops or threatens to cease to carry on its business or any substantial part of its business; or
 - (b) an order is made or an effective resolution passed for the winding-up of ABB Ltd; or
 - (c) any event or circumstance shall occur under the laws of Switzerland in relation to ABB Ltd which is analogous to any event or circumstance described in either of sub paragraphs 3(a) or (b) above; or
- (4) in the event that a Substituted Debtor (as defined in Condition 15 (*Substitution*)) shall have become the principal debtor in respect of the Instruments pursuant to Condition 15 (*Substitution*) and such Substituted Debtor is incorporated in The Netherlands then paragraphs (iv)(1)(a) and (iv)(1)(b) above shall apply as appropriate as if such Substituted Debtor were the Issuer; or,
- (5) in the event that a Substituted Debtor (as defined in Condition 15 (*Substitution*)) shall have become the principal debtor in respect of the Instruments pursuant to Condition 15 (*Substitution*) and such Substituted Debtor is incorporated in the United States then paragraphs (iv)(2)(a) and (iv)(2)(b) above shall apply as appropriate as if such Substituted Debtor were the Issuer; or,
- (6) if the Substituted Debtor is incorporated in a country other than The Netherlands or the United States:
- (a) such Substituted Debtor becomes insolvent or is unable to pay its debts as they mature or an application is made under any applicable liquidation, insolvency, composition, reorganisation or similar laws or an application is made for the appointment of an administrative or other receiver, manager, administrator or other similar official in respect of such Substituted Debtor or the whole or any part of the undertaking, property, assets or revenues of such Substituted Debtor or such Substituted Debtor takes any proceeding under any applicable law for a readjustment or deferment of its obligations or any part of them or makes or enters into a general assignment or an arrangement or composition with or for the benefit of its creditors or stops or threatens to cease to carry on its business or any substantial part of its business; or
 - (b) an order is made or an effective resolution passed for the winding-up of such Substituted Debtor; or
 - (c) any event or circumstance shall occur under the laws of any applicable jurisdiction in relation to the Substituted Debtor which is analogous to

any event or circumstance described in either of sub-paragraphs 6 (a) or (b) above; or

(v) **Guarantee**

- (a) the Guarantee is not (or is claimed by ABB Ltd, not to be) in full force and effect;
- (b) any Holder of an Instrument may, by written notice to the Issuer and the Guarantor, at the Specified Office of the Fiscal Agent, declare that such Instrument and (if the Instrument is interest bearing) all interest then accrued on such Instrument shall be forthwith due and payable, whereupon the same shall become immediately due and payable at its early termination amount (the "**Early Termination Amount**", which shall be its principal amount or, in the case of any original issue discount Instruments, the issue price of such Instruments on their original issuance plus accrued original issue discount to but excluding the date fixed for redemption or such other early termination amount as may be specified in or determined in accordance with the relevant Final Terms) together with all interest (if any) accrued thereon to but excluding the date fixed for redemption without further formality, unless, prior to receipt of such notice by the Fiscal Agent at its Specified Office, all Events of Default in respect of the Instruments of the relevant Series shall have been cured.

8. Taxation

8.01 This Condition 8.01 applies to the Instruments of ABB Netherlands as Issuer and any Substituted Debtor which is not incorporated or resident for tax purposes in any state of the United States only.

All amounts payable (whether in respect of principal, Redemption Amount or interest) in respect of the Instruments by or on behalf of the Issuer and the Guarantor will be made without withholding or deduction for, or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature imposed, levied, collected, withheld or assessed by or on behalf of the Issuer's jurisdiction of incorporation or the Guarantor's jurisdiction of incorporation or any political subdivision thereof or any authority therein or thereof having power to tax (collectively, "**Taxes**"), unless the withholding or deduction of the Taxes is required by law. In that event, subject to the exceptions and limitations set forth below, the Issuer or (as the case may be) the Guarantor will pay such additional amounts as may be necessary in order that the net amounts receivable by the Holder of any Instrument or Coupon after such withholding or deduction shall equal the respective amounts which would have been receivable by such Holder in the absence of such withholding or deduction; except that no such additional amounts shall be payable in relation to any payment in respect of any Instrument or Coupon:

- (i) to, or to a third party on behalf of, a Holder or beneficial owner of such Instrument or Coupon who is liable for such Taxes in respect of such Instrument or Coupon by reason of his having some connection with the jurisdiction by which such Taxes have been imposed, levied, collected, withheld or assessed other than the mere holding of such Instrument or Coupon; or
- (ii) presented or surrendered for payment more than 30 days after the Relevant Date, except to the extent that the relevant Holder would have been entitled to such additional amounts on presenting or surrendering the same for payment on the last day of the period of 30 days assuming that day to have been a day on which the Holder of such Instrument or Coupon is entitled to receive payment in accordance with Condition 9A.05 (*Payments – Bearer Instruments*) or, as the case may be, Condition 9B.02 (*Payments – Registered Instruments*); or
- (iii) to, or to a third party on behalf of, a Holder or beneficial owner of such Instrument or Coupon who is able to avoid such withholding or deduction by presenting any form or certificate and/or making a declaration of non-residence or other similar claim for exemption to the relevant tax authority, or to the extent that such Holder or beneficial owner is able to credit or obtain a refund of such amount withheld or deducted from any tax authority; or

- (iv) where such taxes, duties, assessments or other governmental charges are imposed on a payment in respect of the Instruments required to be made pursuant to laws enacted by Switzerland providing for the taxation of payments according to principles similar to those laid down in the draft legislation of the Swiss Federal Council of 17 December 2014 altering the debtor-based Swiss federal withholding tax system to a paying-agent system where a person other than the Issuer has to withhold tax on any interest payments or securing of interest payments; or
- (v) where such taxes, withholdings, or deductions are imposed in respect of Sections 1471 through 1474 of the United States Internal Revenue Code of 1986, as amended (the "**Code**"), the regulations thereunder, official interpretations thereof, agreements entered into pursuant to section 1471(b) of the Code, and certain fiscal or regulatory legislation, rules or practices adopted pursuant to intergovernmental agreements entered into in connection with the implementation of such sections of the Code; or
- (vi) held by or on behalf of a Holder who would have been able to avoid such withholding or deduction (a) by presenting the relevant Instrument or Coupon to another paying agent or (b) by authorising the paying agent to report information in accordance with the procedure laid down by the relevant tax authority or by producing, in the form required by the relevant tax authority, a declaration, claim, certificate, document or other evidence establishing exemption therefrom; or
- (vii) in respect of any estate, inheritance, gift, sales, transfer, wealth or personal property tax or any similar tax, duty, assessment or governmental charge; or
- (viii) in respect of any Taxes that are not payable by withholding by the Issuer or (as the case may be) the Guarantor, or by a Paying Agent, from the payment of the amount payable (whether in respect of principal, Redemption Amount or interest) in respect of such Instrument; or
- (ix) in respect of any combination of items (i) to (viii) (inclusive) above.

8.02 This Condition 8.02 applies to the Instruments of ABB USA as Issuer and any Substituted Debtor incorporated or resident for tax purposes in any state of the United States.

All amounts payable (whether in respect of principal, Redemption Amount or interest) in respect of the Instruments by or on behalf of the Issuer and the Guarantor will be made without withholding or deduction for, or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature imposed, levied, collected, withheld or assessed by or on behalf of the United States or the Guarantor's jurisdiction of incorporation or any political subdivision thereof or any authority therein or thereof having power to tax (collectively, "**Taxes**"), unless the withholding or deduction of the Taxes is required by law. In that event, subject to the exceptions and limitations set forth below, the Issuer or (as the case may be) the Guarantor will pay such additional amounts as may be necessary in order that the net amounts receivable by the Holder of any Instrument or Coupon after such withholding or deduction shall equal the respective amounts which would have been receivable by such Holder in the absence of such withholding or deduction; except that no such additional amounts shall be payable in relation to any payment in respect of any Instrument or Coupon:

- (i) to, or to a third party on behalf of, a Holder or beneficial owner of such Instrument or Coupon who is liable for such Taxes in respect of such Instrument or Coupon by reason of his having some connection with the jurisdiction by which such Taxes have been imposed, levied, collected, withheld or assessed other than the mere holding of such Instrument or Coupon; or
- (ii) presented or surrendered for payment more than 30 days after the Relevant Date, except to the extent that the relevant Holder would have been entitled to such additional amounts on presenting or surrendering the same for payment on the last day of the period of 30 days assuming that day to have been a day on which the Holder of such Instrument or Coupon is entitled to receive payment in accordance with Condition 9A.05 (*Payments* –

Bearer Instruments) or, as the case may be, Condition 9B.02 (*Payments – Registered Instruments*); or

- (iii) to, or to a third party on behalf of, a Holder or beneficial owner of such Instrument or Coupon who is able to avoid such withholding or deduction by complying with any applicable certification, identification or other reporting requirements (including any appropriate IRS Form W-8 or IRS Form W-9) concerning the nationality, residence or identity of the Holder, beneficial owner of such Instrument or Coupon or third party, or its connection (or lack thereof) with a relevant jurisdiction, or to the extent that such Holder or beneficial owner is able to credit or obtain a refund of such amount withheld or deducted from any tax authority; or
- (iv) to the extent such withholding or deduction is imposed because the Instruments or Coupons is held by a Holder or if an interest in such Instrument or Coupon owned by a beneficial owner which is or was a personal holding company, foreign personal holding company or passive foreign investment company with respect to the United States or a corporation that accumulates earnings to avoid United States federal income tax; or
- (v) if such tax is an estate, inheritance, gift, sales, transfer or personal property tax or any similar tax, assessment, or governmental charge; or
- (vi) to the extent such withholding or deduction is imposed because the Instruments or Coupons is held by a Holder or if an interest in such Instrument or Coupon owned by a beneficial owner which is or has been a "10 per cent. shareholder" of the obligor of the Note as defined in Section 871(h)(3) of the Code or any successor provisions; or
- (vii) where such taxes, duties, assessments or other governmental charges are imposed on a payment in respect of the Instruments required to be made pursuant to laws enacted by Switzerland providing for the taxation of payments according to principles similar to those laid down in the draft legislation of the Swiss Federal Council of 17 December 2014 altering the debtor-based Swiss federal withholding tax system to a paying-agent system where a person other than the Issuer has to withhold tax on any interest payments or securing of interest payments; or
- (viii) where such taxes, withholdings, or deductions are imposed in respect of Sections 1471 through 1474 of the Code, the regulations thereunder, official interpretations thereof, agreements entered into pursuant to section 1471(b) of the Code, and certain fiscal or regulatory legislation, rules or practices adopted pursuant to intergovernmental agreements entered into in connection with the implementation of such sections of the Code; or
- (ix) held by or on behalf of a Holder who would have been able to avoid such withholding or deduction (a) by presenting the relevant Instrument or Coupon to another paying agent or (b) by authorising the paying agent to report information in accordance with the procedure laid down by the relevant tax authority or by producing, in the form required by the relevant tax authority, a declaration, claim, certificate, document or other evidence establishing exemption therefrom; or
- (x) in respect of any Taxes that are not payable by withholding by the Issuer or (as the case may be) the Guarantor, or by a Paying Agent, from the payment of the amount payable (whether in respect of principal, Redemption Amount or interest) in respect of such Instrument; or
- (xi) in respect of any combination of items (i) to (x) (inclusive) above.

8.03 For the purposes of these Conditions, the "**Relevant Date**" means, in respect of any payment, the date on which such payment first becomes due and payable, but if the full amount of the moneys payable has not been received by the Fiscal Agent, or as the case may be, the Registrar on or prior to such due date, it means the first date on which, the full amount of such moneys having been so received, notice to that effect shall have been given to the Holders of the Instruments of the relevant Series in accordance with Condition 14 (*Notices*).

8.04 Any reference in these Conditions to principal, Redemption Amount and/or interest in respect of the Instruments shall be deemed also to refer to any additional amounts which may be payable under this Condition 8.

9. Payments

9A Payments—Bearer Instruments

9A.01 This Condition 9A is applicable in relation to Bearer Instruments.

9A.02 Payment of principal due in respect of Bearer Instruments will be made against presentation and (**provided that** payment is made in full) surrender of the relevant Bearer Instruments at the Specified Office of any of the Paying Agents outside (unless Condition 9A.04 applies) the United States.

9A.03 Payment of interest on Bearer Instruments shall be made only against presentation and (**provided that** payment is made in full) surrender of the appropriate Coupons at the Specified Office of any of the Paying Agents outside (unless Condition 9A.04 applies) the United States.

9A.04 Payments of principal or interest in respect of the Bearer Instruments and exchanges of Talons for Coupon sheets in accordance with Condition 9A.10 will not be made at the Specified Office of any Paying Agent in the United States (as defined in the Code and Regulations thereunder), nor will any such payments be made by wire transfer to an account maintained in the United States unless (a) payment in full of amounts due in respect of interest on such Instruments when due or, as the case may be, the exchange of Talons at all the Specified Offices of the Paying Agents outside the United States is illegal or effectively precluded by exchange controls or other similar restrictions, (b) such payment or exchange is permitted by applicable United States law and (c) the Bearer Instruments are denominated and payable in United States dollars. If paragraphs (a) to (c) of the previous sentence apply, the Issuer shall forthwith appoint a further Paying Agent with a Specified Office in New York City. Payments of interest other than in respect of matured Coupons shall be made only against presentation of the relevant Bearer Instruments at the Specified Office of any Paying Agent outside the United States.

9A.05 If the due date for payment of any amount due in respect of any Bearer Instrument is not a Relevant Financial Centre Day in the place of presentation, then the Holder thereof will not be entitled to payment thereof until the next succeeding Relevant Financial Centre Day in such place and no further payment on account of interest or otherwise shall be due in respect of such postponed payment.

9A.06 If the relevant Final Terms specifies that the Fixed Rate Instrument Provisions are applicable and a Bearer Instrument which had coupons attached is presented without all unmatured Coupons relating thereto:

(i) if the aggregate amount of the missing Coupons is less than or equal to the amount of principal due for payment, a sum equal to the aggregate amount of the missing Coupons will be deducted from the amount of principal due for payment; **provided, however, that** if the gross amount available for payment is less than the amount of principal due for payment, the sum deducted will be that proportion of the aggregate amount of such missing Coupons which the gross amount actually available for payment bears to the amount of principal due for payment;

(ii) if the aggregate amount of the missing Coupons is greater than the amount of principal due for payment:

(A) so many of such missing Coupons shall become void (in inverse order of maturity) as will result in the aggregate amount of the remainder of such missing Coupons (the "**Relevant Coupons**") being equal to the amount of principal due for payment; **provided, however, that** where this sub-paragraph would otherwise require a fraction of a missing Coupon to become void, such missing Coupon shall become void in its entirety; and

- (B) a sum equal to the aggregate amount of the Relevant Coupons (or, if less, the amount of principal due for payment) will be deducted from the amount of principal due for payment; **provided, however, that**, if the gross amount available for payment is less than the amount of principal due for payment, the sum deducted will be that proportion of the aggregate amount of the Relevant Coupons (or, as the case may be, the amount of principal due for payment) which the gross amount actually available for payment bears to the amount of principal due for payment.

Each sum of principal so deducted shall be paid in the manner provided in Condition 9C.02 against presentation and (**provided that** payment is made in full) surrender of the relevant missing Coupons.

- 9A.07 If the relevant Final Terms specifies that this Condition 9A.07 is applicable or that the Floating Rate Instrument Provisions are applicable, on the due date for final redemption of any Instrument or early redemption in whole of such Instrument pursuant to Condition 6.02 (*Early Redemption for Taxation Reasons*), Condition 6.06 (*Optional Early Redemption (Put)*), Condition 6.03 (*Optional Early Redemption (Call)*) or Condition 7 (*Events of Default*), all unmatured Coupons relating thereto (whether or not still attached) shall become void and no payment will be made in respect thereof.
- 9A.08 If a Paying Agent makes a partial payment in respect of any Bearer Instrument or Coupon presented to it for payment, such Paying Agent will endorse thereon a statement indicating the amount and date of such payment.
- 9A.09 All payments in respect of the Bearer Instruments are subject in all cases to any applicable fiscal or other laws and regulations in the place of payment, but without prejudice to the provisions of Condition 8 (*Taxation*). No commissions or expenses shall be charged to the Holders of Instruments or Coupons in respect of such payments.
- 9A.10 In relation to Definitive Instruments initially delivered with Talons attached thereto, on or after the due date for the payment of interest on which the final Coupon comprised in any Coupon sheet matures, the Talon comprised in the Coupon sheet may be surrendered at the Specified Office of any Paying Agent outside (unless Condition 9A.04 applies) the United States in exchange for a further Coupon sheet (including any appropriate further Talon), subject to the provisions of Condition 10 (*Prescription*) below. Each Talon shall, for the purpose of these Conditions, be deemed to mature on the due date for the payment of interest on which the final Coupon comprised in the relative Coupon sheet matures.

9B *Payments—Registered Instruments*

- 9B.01 This Condition 9B is applicable in relation to Registered Instruments.
- 9B.02 Payment of amounts due in respect of Registered Instruments on the final redemption of Registered Instruments will be made against presentation and, save in the case of partial payment of the amount due upon final redemption by reason of insufficiency of funds, surrender of the relevant Certificates at the Specified Office of the Registrar.
- 9B.03 Payment of amounts due (other than in respect of the final redemption of Registered Instruments) in respect of Registered Instruments will be paid to the Holder thereof (or, in the case of joint Holders, the first named) as appearing in the register kept by the Registrar as at the opening of business (local time in the place of the Specified Office of the Registrar) on the fifteenth day before the due date for such payment (the "**Record Date**").
- 9B.04 All payments in respect of the Registered Instruments are subject in all cases to any applicable fiscal or other laws and regulations in the place of payment, but without prejudice to the provisions of Condition 8 (*Taxation*). No commissions or expenses shall be charged to the Holders in respect of such payments.
- 9B.05 Where payment is to be made by transfer to an account, payment instructions (for value the due date, or, if the due date is not Relevant Financial Centre Day, for value the next succeeding Relevant Financial Centre Day) will be initiated and, where payment is to be made by cheque, the

cheque will be mailed (i) (in the case of payments of principal and interest payable on redemption) on the later of the due date for payment and the day on which the relevant Certificate is surrendered (or, in the case of part payment only, endorsed) at the Specified Office of a Paying Agent and (ii) (in the case of payments of interest payable other than on redemption) on the due date for payment. A Holder of a Registered Instrument shall not be entitled to any interest or other payment in respect of any delay in payment resulting from (A) the due date for a payment not being a Relevant Financial Centre Day or (B) a cheque mailed in accordance with this Condition 9 arriving after the due date for payment or being lost in the mail.

- 9B.06 If a Paying Agent makes a partial payment in respect of any Registered Instrument, the Issuer shall procure that the amount and date of such payment are noted on the Register and, in the case of partial payment upon presentation of a Certificate, that a statement indicating the amount and the date of such payment is endorsed on the relevant Certificate.
- 9B.07 Notwithstanding the provisions of Condition 9C.02 (*Payments – General Provisions*), payment of amounts due (other than in respect of final redemption of Registered Instruments) in respect of Registered Instruments will be made by cheque and posted to the address (as recorded in the register held by the Registrar) of the Holder thereof (or, in the case of joint Holders, the first named) not later than the relevant date for payment unless prior to the relevant Record Date the Holder thereof (or, in the case of joint Holders, the first named) has applied to the Registrar and the Registrar has acknowledged such application for payment to be made to a designated account in the relevant currency (in the case aforesaid, a non-resident account with an authorised foreign exchange bank).

9C ***Payments—General Provisions***

9C.01 Save as otherwise specified herein, this Condition 9C is applicable in relation to Instruments whether in bearer or in registered form.

9C.02 Payments of amounts due in respect of Instruments will be made by (a) transfer to an account in the relevant currency specified by the payee or (b) cheque drawn in the currency on which payment is due. Payments will, without prejudice to the provisions of Condition 8, be subject in all cases to any applicable fiscal or other laws and regulations.

9C.03 For the purposes of these Conditions:

- (i) **"Business Day"** means a day:
- in relation to Instruments payable in Euro, which is a TARGET Business Day; and
 - in relation to Instruments payable in any other currency, on which commercial banks are open for general business (including dealings in foreign exchange and foreign currency deposits) and settle payments in the Relevant Financial Centre in respect of the relevant Instruments; and
 - on which commercial banks and foreign exchange markets are open for general business and settle payments (including dealings in foreign exchange and foreign currency deposits) in any place specified in the relevant Final Terms;
- (ii) **"Relevant Financial Centre"** means such financial centre or centres as may be specified in relation to the relevant currency for the purposes of the definition of **"Business Day"** in the ISDA Definitions;
- (iii) **"Relevant Financial Centre Day"** means:
- (1) if the currency of payment is not Euro, any day which is:
- (a) a day on which banks in the relevant place of presentation are open for presentation and payment of bearer debt securities and for dealings in foreign currencies; and

- (b) in the case of payment by transfer to an account, a day on which dealings in foreign currencies may be carried on in the Relevant Financial Centre and in each (if any) additional financial centre specified in the relevant Final Terms; and
 - (2) if the currency of payment is Euro, any day which is:
 - (a) a day on which banks in the relevant place of presentation are open for presentation and payment of bearer debt securities and for dealings in foreign currencies; and
 - (b) in the case of payment by transfer to an account, a TARGET Business Day and a day on which dealings in foreign currencies may be carried on in each (if any) additional financial centre specified in the Final Terms;
- and, in the case of (i), (ii) or (iii) of this Condition 9C.03, as the same may be modified in the relevant Final Terms.

10. Prescription

- 10.01 Bearer Instruments and Coupons (including any claims against the Issuer in respect thereof) will become void unless made within ten years (or, in the case of interest, five years) after the Relevant Date (as defined in Condition 8.02 (*Taxation*)) for payment thereof.
- 10.02 Claims against the Issuer in respect of Registered Instruments will be prescribed unless made within ten years after the Relevant Date (as defined in Condition 8.02 (*Taxation*)) for payment thereof.

11. The Paying Agents and the Registrars

In acting under the Fiscal Agency Agreement and in connection with the Instruments and the Coupons, the Paying Agents act solely as agents of the Issuer and the Guarantor and do not assume any obligations towards or relationship of agency or trust for or with any of the Holders of Instruments or Coupons.

The initial Paying Agent and Registrar and their respective initial Specified Offices are specified herein. The Issuer and the Guarantor reserve the right at any time to vary or terminate the appointment of any Paying Agent (including the Fiscal Agent) or the Registrar and to appoint additional or other Paying Agents or another Registrar **provided that** they will at all times maintain (i) a Fiscal Agent, (ii) in the case of Registered Instruments, a Registrar (which may be the Fiscal Agent), (iii) a Paying Agent (which may be the Fiscal Agent) with a specified office in continental Europe (but outside the United Kingdom), (iv) so long as any Instruments are listed on SIX Swiss Exchange a Paying Agent in Switzerland which must be a bank or a securities dealer that is subject to supervision by the Swiss Financial Markets Supervisory Authority FINMA (the "**Swiss Paying Agent**"), (v) so long as any Instruments are admitted to listing, trading and/or quotation by any listing authority, stock exchange and/or quotation system which requires the appointment of a paying agent in any particular place, a paying agent having its Specified Office in the place required by such listing authority, stock exchange and/or quotation system, (vi) in the circumstances described in Condition 9A.04, a Paying Agent with a specified office in New York City and (vii) a Paying Agent in a member state of the European Union that will not be obliged to withhold or deduct tax pursuant to the Directive. The Paying Agent and the Registrar reserve the right at any time to change their respective offices to some other Specified Office in the same city. Notice of all changes in the identities or Specified Offices of the Paying Agents or the Registrar will be given promptly to the Holders of the Instruments in accordance with Condition 14 (*Notices*).

12. Replacement of Instruments

If any Instrument, Certificate or Coupon is lost, stolen, mutilated, defaced or destroyed, it may be replaced at the Specified Office of the Fiscal Agent outside of the United States (in the case of Bearer Instruments and Coupons) or of the Registrar (in the case of Registered Instruments), (and, if the Instruments are then admitted to listing, trading and/or quotation by any listing authority, stock exchange and/or quotation system which requires the appointment of a Paying Agent in any

particular place, the Paying Agent having its Specified Office in the place required by such listing authority, stock exchange and/or quotation system), subject to all applicable laws and listing authority, stock exchange and/or quotation system requirements, upon payment by the claimant of all expenses incurred in connection with such replacement and upon such terms as to evidence, security, indemnity and otherwise as the Issuer may require. Mutilated or defaced Instruments, Certificates or Coupons must be surrendered before replacements will be delivered therefor.

13. Meetings of Holders; Modification and Waiver

The Fiscal Agency Agreement contains provisions for convening meetings of the Holders of Instruments of any Series to consider any matter affecting their interest, including (without limitation) the modification by Extraordinary Resolution (as defined in the Fiscal Agency Agreement) of these Conditions. Such a meeting may be convened by the Issuer and the Guarantor (acting together) and shall be convened by them upon the request in writing of Holders holding not less than one-tenth of the aggregate principal amount of the outstanding Instruments. Any such modification proposed by the Issuer and the Guarantor may be made if sanctioned by an Extraordinary Resolution. The quorum for any meeting convened to consider an Extraordinary Resolution will be two or more persons holding or representing in the aggregate one more than half of the aggregate principal amount outstanding (as defined in the Fiscal Agency Agreement) of the Instruments of the relevant Series for the time being outstanding, or at any adjourned meeting two or more persons being or representing Holders of Instruments whatever the principal amount outstanding of the Instruments held or represented, unless the business of such meeting includes consideration of proposals, *inter alia* (i) to vary the date of maturity or any date of redemption (other than pursuant to Condition 6.02 (*Early Redemption for Taxation Reasons*) or 6.03 (*Optional Early Redemption (Call)*)) of any of the Instruments of the relevant Series or any date for payment of any principal or interest in respect thereof, (ii) to reduce or cancel the principal amount of the Instruments of the relevant Series or any amount payable thereon, or to vary any provision regarding the calculation of the rate of interest or any other amount payable thereon or to vary the rate of discount, rate of amortisation or any other rate of return applicable thereto, (iii) to modify the provisions concerning the quorum required at any meeting of Holders of Instruments in respect of the Instruments of the relevant Series or any adjournment thereof or concerning the majority required to pass an Extraordinary Resolution, (iv) to vary the currency in which any payment (or other obligation) in respect of the Instruments of the relevant Series is to be made, (v) to modify any provision of the Guarantee, or (vi) to modify this proviso, in which case the necessary quorum will be two or more persons holding or representing at least three quarters, or at any adjourned meeting at least one quarter, in aggregate principal amount outstanding of the Instruments of the relevant Series for the time being outstanding. An Extraordinary Resolution duly passed at any meeting of the Holders of Instruments of any Series will be binding on all Holders of the Instruments of such Series, whether or not they are present at the meeting, and on all Holders of Coupons (if any).

In addition, a resolution in writing signed by or on behalf of all Holders who for the time being are entitled to receive notice of a meeting of Holders will take effect as if it were an Extraordinary Resolution. Such a resolution in writing may be contained in one document or several documents in the same form, each signed by or on behalf of one or more Holders.

The Instrument, these Conditions, the Guarantee and the Deed of Covenant may be amended without the consent of the Holders of Instruments or Coupons to correct a manifest error. In addition, the parties to the Fiscal Agency Agreement may agree to modify any provision thereof, but the Issuer and the Guarantor shall not agree, without the consent of the Holders, to any such modification unless it is of a formal, minor or technical nature, it is made to correct a manifest error or it is, in the opinion of such parties, not materially prejudicial to the interests of the Holders.

14. Notices

Notices to Holders of Bearer Instruments

- 14.01 Notices to Holders of Bearer Instruments will, save where another means of effective communication has been specified in the relevant Final Terms be deemed to be validly given if published in a leading English language daily newspaper having general circulation in London (which is expected to be the *Financial Times*) and, if the Instruments are admitted to trading on the

Luxembourg Stock Exchange and it is a requirement of applicable law or regulations, a leading newspaper having general circulation in Luxembourg (which is expected to be *Luxemburger Wort*) or published on the website of the Luxembourg Stock Exchange (www.bourse.lu) or in either case, if such publication is not practicable, in a leading English language daily newspaper having general circulation in Europe. Any notice so given will be deemed to have been validly given on the date of first publication (or if required to be published in more than one newspaper, on the first date on which publication shall have been made in all the required newspapers).

So long as any Bearer Instruments are listed on SIX Swiss Exchange and so long as the rules of SIX Swiss Exchange so require, all notices in respect of such Bearer Instruments will be validly given without cost to the Holders of the Instruments either (i) by means of electronic publication on the internet website of SIX Swiss Exchange (www.six-swiss-exchange.com), where notices are currently published under the address www.six-swiss-exchange.com/news/official_notices/search_en.html or (ii) otherwise in accordance with the regulations of SIX Swiss Exchange. Any notices so given will be deemed to have been validly given on the date of such publication or if published more than once, on the first date of such publication.

Holders of Coupons will be deemed for all purposes to have notice of the contents of any notice given to Holders of Bearer Instruments in accordance with this Condition.

Notices to Holders of Registered Instruments

- 14.02 Notices to Holders of Registered Instruments will be deemed to be validly given if sent by first class mail (or equivalent) or (if posted to an overseas address) by air mail to them (or, in the case of joint Holders, to the first named in the register kept by the Registrar) at their respective addresses as recorded in the register kept by the Registrar and, if the Registered Instruments are admitted to trading on the Luxembourg Stock Exchange and it is a requirement of applicable law or regulations, notices to Holders will be published on the date of such mailing in a leading newspaper having general circulation in Luxembourg (which is expected to be *Luxemburger Wort*) or published on the website of the Luxembourg Stock Exchange (www.bourse.lu) or in either case, if such publication is not practicable, in a leading English language daily newspaper having general circulation in Europe. Any such notice will be deemed to have been validly given on the fourth day after the date of such mailing or, if posted from another country, on the fifth such day.

So long as any Registered Instruments are listed on SIX Swiss Exchange and so long as the rules of SIX Swiss Exchange so require, all notices in respect of such Registered Instruments will be validly given without cost to the Holders of the Instruments either (i) by means of electronic publication on the internet website of SIX Swiss Exchange (www.six-swiss-exchange.com), where notices are currently published under the address www.six-swiss-exchange.com/news/official_notices/search_en.html or (ii) otherwise in accordance with the regulations of SIX Swiss Exchange. Any notices so given will be deemed to have been validly given on the date of such publication or if published more than once, on the first date of such publication.

15. Substitution

The Issuer may be replaced, and ABB Ltd or any direct or indirect subsidiary of ABB Ltd may be substituted for the Issuer, as principal debtor in respect of the Instruments, without the consent of the Holders of the Instruments or Coupons. If the Issuer shall determine that ABB Ltd or any such subsidiary shall become the principal debtor (in such capacity, the "**Substituted Debtor**"), the Issuer shall give not less than 30 nor more than 45 days' notice, in accordance with Condition 14 (*Notices*), to the Holders of the Instruments of such event and, immediately on the expiry of such notice, the Substituted Debtor shall enter into a Deed of Assumption, the form of which is set out in the Sixth Schedule to the Fiscal Agency Agreement and become the principal debtor in respect of the Instruments in place of the Issuer and the Holders of the Instruments shall thereupon cease to have any rights or claims whatsoever against the Issuer. However, no such substitution shall take effect (i) if the Substituted Debtor is any other subsidiary of ABB Ltd, unless the Guarantee is fully effective in relation to the obligations of the Substituted Debtor or an equivalent guarantee is entered into, (ii) until such Substituted Debtor shall have executed a deed of covenant substantially in the form of the Deed of Covenant of the Issuer, (iii) until such Substituted Debtor

shall have executed such other deeds, documents and instruments (if any) as may be required in order that the substitution is fully effective; (iv) until the Substituted Debtor shall have provided to the Fiscal Agent and (if applicable) the Registrar such documents as may be necessary to make the Deed of Assumption, the Instruments, the Fiscal Agency Agreement, such deed of covenant, any guarantee and such other deeds, documents and instruments (if any) the legal, valid and binding obligations of, as appropriate, the Substituted Debtor and ABB Ltd together with legal opinions either unqualified or subject to normal, usual or appropriate qualifications and assumptions to the effect that the Instruments, the Fiscal Agency Agreement, the Deed of Assumption, such deed of covenant, any guarantee and such other deeds, documents and instruments (if any) are legal, valid and binding obligations of, as appropriate, ABB Ltd and the Substituted Debtor, (v) the Substituted Debtor shall have obtained all necessary governmental and regulatory approvals and consents, if any, in connection with the substitution, and (vi) the Substituted Debtor shall have appointed the process agent appointed by the Issuer in Condition 19.03 (*Agent for service of process*) as its agent in England to receive service of process on its behalf in relation to any legal action or proceedings arising out of or in connection with the Instruments or Coupons. Upon any such substitution, the Instruments and Coupons will, if necessary, be deemed to be modified in all appropriate respects.

16. Further Issues

The Issuer may, from time to time without the consent of the Holders of any Instruments or Coupons, create and issue further instruments, notes, bonds or debentures having the same terms and conditions as such Instruments in all respects (or in all respects except for the first payment of interest, if any, on them) so as to form a single series with the Instruments of any particular Series.

17. Currency Indemnity

The currency in which the Instruments are denominated or, if different, payable, as specified in the relevant Final Terms (the "**Contractual Currency**") is the sole currency of account and payment for all sums payable by the Issuer in respect of the Instruments, including damages. Any amount received or recovered in a currency other than the Contractual Currency (whether as a result of, or of the enforcement of, a judgment or order of a court of any jurisdiction or otherwise) by any Holder of an Instrument or Coupon in respect of any sum expressed to be due to it from the Issuer shall only constitute a discharge to the Issuer to the extent of the amount in the Contractual Currency which the recipient is able to purchase with the amount so received or recovered in that other currency on the date of that receipt or recovery (or, if it is not practicable to make that purchase on that date, on the first date on which it is practicable to do so). If that amount is less than the amount in the Contractual Currency expressed to be due to the recipient in respect of the Instruments, the Issuer shall indemnify it against any loss sustained by it as a result. In any event, the Issuer shall indemnify the recipient against any cost of making any such purchase which is reasonably incurred. These indemnities constitute a separate and independent obligation from the Issuer's other obligations, shall give rise to a separate and independent cause of action, shall apply irrespective of any indulgence granted by any Holder of an Instrument or Coupon and shall continue in full force and effect despite any judgment, order, claim or proof for a liquidated amount in respect of any sum due in respect of the Instruments or any judgment or order.

18. Rounding

For the purposes of any calculations referred to in these Conditions (unless otherwise specified in these Conditions or the relevant Final Terms), (a) all percentages resulting from such calculations will be rounded, if necessary, to the nearest one hundred-thousandth of a percentage point (with 0.000005 per cent. being rounded up to 0.00001 per cent.), (b) all United States dollar amounts used in or resulting from such calculations will be rounded to the nearest cent (with one half cent being rounded up), (c) all Japanese Yen amounts used in or resulting from such calculations will be rounded downwards to the next lower whole Japanese Yen amount, and (d) all amounts denominated in any other currency used in or resulting from such calculations will be rounded to the nearest two decimal places in such currency, with 0.005 being rounded upwards.

19. Law and Jurisdiction

Governing Law

- 19.01 The Fiscal Agency Agreement, the Deed of Covenant, the Instruments and any non-contractual obligations arising out of or in connection with the Fiscal Agency Agreement, the Deed of Covenant and the Instruments, are governed by English law. The Guarantee is governed by, and shall be construed in accordance with, the laws of Switzerland.

Jurisdiction

- 19.02 In relation to any legal action or proceedings arising out of or in connection with the Fiscal Agency Agreement, the Deed of Covenant and the Instruments (including a dispute relating to any non-contractual obligation arising out of or in connection with the Fiscal Agency Agreement, the Deed of Covenant and the Instruments) ("**Proceedings**"), the Issuer irrevocably submits to the jurisdiction of the courts of England and waives any objection to Proceedings in such courts whether on the ground of venue or on the ground that the Proceedings have been brought in an inconvenient forum. The Issuer agrees to the additional non-exclusive jurisdiction of the courts of the Canton of Zurich, the place of jurisdiction being Zurich 1. This submission is made for the benefit of each Holder of any Instrument and shall not limit the right of any of them to take Proceedings in any other court of competent jurisdiction nor shall the taking of Proceedings in one or more jurisdictions preclude the taking of Proceedings in any other jurisdiction (whether concurrently or not).

In relation to any legal action or proceedings arising out of or in connection with the Guarantee, the Guarantor submits to the exclusive jurisdiction of the courts of the Canton of Zurich, the place of jurisdiction being Zurich 1.

Agent for Service of Process

- 19.03 The Issuer appoints ABB Limited, incorporated in England, of Daresbury Park, Daresbury, Warrington WA4 4BT, Cheshire, as its agent in England to receive service of process in any Proceedings in England. If for any reason such process agent ceases to act as such or no longer has an address in England, the Issuer agrees to appoint a substitute process agent and to notify the Holders of the Instruments of such appointment in accordance with Condition 14 (*Notices*) and failing such appointment within 21 days, the Fiscal Agent shall be entitled to appoint such a person by notice to the Issuer and the Holders of the Instruments in accordance with Condition 14 (*Notices*). Nothing contained herein shall affect the right to serve process in any other manner permitted by law.

FORM OF FINAL TERMS

The Final Terms in respect of each Tranche of Instruments will be substantially in the following form, duly supplemented (if necessary), amended (if necessary) and completed to reflect the particular terms of the relevant Instruments and their issue. Text in this section appearing in italics does not form part of the form of the Final Terms but denotes directions for completing the Final Terms.

[PROHIBITION OF SALES TO EEA RETAIL INVESTORS - The Instruments 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 means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "**MiFID II**") or (ii) a customer within the meaning of Directive 2002/92/EC ("as amended or superseded), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II. Consequently no key information document required by Regulation (EU) No 1286/2014 (the "**PRIIPs Regulation**") for offering or selling the Instruments or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Instruments or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.]

[MiFID II Product Governance/ Professional investors and eligible counterparties and professional clients only target market - Solely for the purposes of [the/each] manufacturer's product approval process, the target market assessment in respect of the Instruments has led to the conclusion that: (i) the target market for the Instruments is eligible counterparties and professional clients only, each as defined in MiFID II; and (ii) all channels for distribution of the Instruments to eligible counterparties and professional clients are appropriate. Any person subsequently offering, selling or recommending the Instruments (a "**distributor**") should take into consideration the manufacturer['s/s'] target market assessment; however, a distributor subject to MiFID II is responsible for undertaking its own target market assessment in respect of the Instruments (by either adopting or refining the manufacturer['s/s'] target market assessment) and determining appropriate distribution channels.]

[Singapore Securities and Futures Act Product Classification – Solely for the purposes of its obligations pursuant to sections 309B(1)(a) and 309B(1)(c) of the Securities and Futures Act (Chapter 289 of Singapore) (the "**SFA**"), the Issuer has determined, and hereby notifies all relevant persons (as defined in section 309A of the SFA) that the Instruments are ["prescribed capital markets products"/["capital markets products other than prescribed capital markets products"] (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018) and ["Excluded Investment Products"/["Specified 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).]

Final Terms dated [•]

[ABB Finance B.V.] / [ABB Finance (USA) Inc.]

Issue of [Aggregate Principal Amount of Tranche] [Title of Instruments]

Guaranteed by ABB Ltd

under the US\$8,000,000,000 Programme for the Issuance of Debt Instruments

Part A – Contractual Terms

Terms used herein shall be deemed to be defined as such for the purposes of the Terms and Conditions of the Instruments (the "**Conditions**") set forth in the Information Memorandum dated April 1, 2019 [and the supplemental Information Memorandum dated [•]]. This document constitutes the Final Terms relating to the issue of Instruments described herein. These Final Terms contain the final terms of the Instruments and must be read in conjunction with such Information Memorandum [as so supplemented].

Full information on the Issuer, the Guarantor and the offer of the Instruments described herein is only available on the basis of the combination of these Final Terms and the Information Memorandum [as so supplemented]. The Information Memorandum [and the supplemental Information Memorandum] [is] [are] available for viewing [at [website]] [and] during normal business hours at [address] [and copies may be obtained from [address]].

The following alternative language applies if the first tranche of an issue which is being increased was issued under an Information Memorandum with an earlier date.

Terms used herein shall be deemed to be defined as such for the purposes of the Terms and Conditions of the Instruments (the "**Conditions**") set forth in the Information Memorandum dated [*original date*]. These Final Terms contain the final terms of the Instruments and must be read in conjunction with the Information Memorandum dated [*current date*] [and the supplemental Information Memorandum dated [*date*]], save in respect of the Conditions which are extracted from the Information Memorandum dated [*original date*] and are attached hereto.

[Include whichever of the following apply or specify as "Not Applicable" (N/A). Note that the numbering should remain as set out below, even if "Not Applicable" is indicated for individual paragraphs or subparagraphs. Italics denote guidance for completing the Final Terms.]

[When completing any final terms, or adding any other final terms or information, consideration should be given as to whether such terms or information constitute "significant new factors" and consequently trigger the need for a supplement to the Information Memorandum in accordance with the rules of the Luxembourg Stock Exchange]

The Instruments will have a denomination of at least euro 100,000 (or its equivalent as of the Issue Date of Instruments denominated in any other currency).

- | | | | |
|----|-------|-----------------------------------|---|
| 1. | (i) | Issuer: | [ABB Finance B.V./ABB Finance (USA) Inc.] |
| | (ii) | Guarantor | ABB Ltd |
| 2. | [(i) | Series Number:] | [•] |
| | [(ii) | Tranche Number: | [•] |
| | | | <i>(If fungible with an existing Series, details of that Series, including the date on which the Instruments become fungible.)</i> |
| 3. | | Specified Currency or Currencies: | [•] |
| 4. | | Aggregate Principal Amount: | [•] |
| | [(i)] | [Series]: | [•] |
| | [(ii) | Tranche: | [•]] |
| 5. | (i) | Issue Price: | [•] per cent. of the Aggregate Principal Amount [plus accrued interest from [<i>insert date</i>] (in the case of fungible issues only, if applicable)] |
| | (ii) | Net proceeds | [•] |
| 6. | (i) | Specified Denominations: | [•] |
| | | | <i>[Note: the minimum Specified Denomination must be euro 100,000 or equivalent in other currency]</i> |
| | | | <i>[Note – where multiple denominations above euro [100,000] or equivalent are being used the following wording should be followed: "[euro 100,000] and integral multiples of [euro 1,000] in excess thereof up to and including [euro 199,000]. No Instruments in definitive form will be issued with a denomination above [euro 199,000]."]</i> |
| | (ii) | Calculation Amount: | [•] |

(If only one Specified Denomination, insert the Specified Denomination. If more than one Specified Denomination, insert the highest common factor. Note: There must be a common factor in the case of two or more Specified Denominations.)

7. (i) Issue Date: [•]
- (ii) Interest Commencement Date: [Specify/Issue Date/Not Applicable]
8. Maturity Date: *[Specify date or (for Floating Rate Instruments) Interest Payment Date falling in or nearest to the relevant month and year]*
- [If the Maturity Date is less than one year from the Issue Date and either (a) the issue proceeds are received by the Issuer in the United Kingdom, or (b) the activity of issuing the Instruments is carried on from an establishment maintained by the Issuer in the United Kingdom, (i) the Instruments must have a minimum redemption value of £100,000 (or its equivalent in other currencies) and be sold only to "professional investors or (ii) another applicable exemption from Section 19 of the FSMA must be available]*
9. Interest Basis: [[•] per cent. Fixed Rate]
- [[Specify reference rate] +/- [•] per cent. Floating Rate]
- [Other (Specify)]
- (further particulars specified below)
10. Redemption/Payment Basis: [Redemption at par]
- [Partly Paid]
- [Instalment]
- [Other (Specify)]
11. Change of Interest or Redemption/Payment Basis: *[Specify details of any provision for convertibility of Instruments into another interest or redemption/payment basis]*
12. Put/Call Options: [Investor Put Option]
- [Issuer Call Option]
- [(further particulars specified below)]
13. [(i)] Status of the Instruments: Senior, unsubordinated
- [(ii)] Status of the Guarantee: Senior, unsubordinated
- [(iii)] [Date [Board] approval for issuance of Instruments obtained:] [•]

(N.B. Only relevant where Board (or similar) authorisation is required for the particular tranche of Instruments)

14. Method of distribution: [Syndicated/Non-syndicated]

PROVISIONS RELATING TO INTEREST (IF ANY) PAYABLE

15. **Fixed Rate Instrument Provisions** [Applicable/Not Applicable]

(If not applicable, delete the remaining sub-paragraphs of this paragraph)

- (i) Rate[(s)] of Interest: [•] per cent. per annum [payable [annually/ semi-annually/ quarterly/ monthly/ other (*specify*)] in arrear]
- (ii) Interest Payment Date(s): [•] in each year [adjusted in accordance with [*specify Business Day Convention and any applicable additional financial centre for the definition of "Business Day"*]/not adjusted]
- (iii) Fixed Coupon Amount[(s)]: [•] per Calculation Amount
- (iv) Broken Amount(s): [•] per Calculation Amount, payable on the Interest Payment Date falling [in/on] [•]
- (v) Day Count Fraction: [30/360 / Actual/Actual (ICMA/ISDA) / other]
- (vi) Other terms relating to the method of calculating interest for Fixed Rate Instruments: [Not Applicable/*give details*]

16. **Floating Rate Instrument Provisions** [Applicable/Not Applicable]

(If not applicable, delete the remaining sub-paragraphs of this paragraph)

- (i) Interest Period(s): [•]
- (ii) First Interest Payment Date: [•]
- (iii) Business Day Convention: [FRN Convention/Following Business Day Convention/ Modified Following Business Day Convention / other (*give details*)]
- (iv) Manner in which the Rate(s) of Interest is/are to be determined: [Screen Rate Determination/ISDA Determination/other (*give details*)]
- (v) Party responsible for calculating the Rate(s) of Interest and/or Interest Amount(s) (if not the Fiscal Agent): [[*Name*] shall be the Determination Agent (*no need to specify if the Fiscal Agent is to perform this function*)]

- (vi) Screen Rate Determination:
- Reference rate: [For example, LIBOR or EURIBOR]
 - Interest Determination Date(s): [•]
 - Relevant Screen Page: [For example, Reuters LIBOR 01/ EURIBOR 01]
 - Relevant time: [For example, 11.00 a.m. London time/Brussels time]
 - Relevant Financial Centre: [For example, London/Euro-zone (where Euro-zone means the region comprised of the countries whose lawful currency is the euro)]
- (vii) ISDA Determination:
- Floating Rate Option: [•]
 - Designated Maturity: [•]
 - Reset Date: [•]
- (viii) Margin(s): [+/-][•] per cent. per annum
- (ix) Minimum Rate of Interest: [•] per cent. per annum
- (x) Maximum Rate of Interest: [•] per cent. per annum
- (xi) Day Count Fraction: [•]
- (xii) Fall back provisions, rounding provisions, denominator and any other terms relating to the method of calculating interest on Floating Rate Instruments, if different from those set out in the Conditions: [•]

PROVISIONS RELATING TO REDEMPTION

17. **Call Option** [Applicable/Not Applicable]
- (If not applicable, delete the remaining subparagraphs of this paragraph)*
- (i) Optional Redemption Date(s): [•]
- (ii) Optional Redemption Amount(s) of each Instrument and method, if any, of calculation of such amount(s): [[•] per Calculation Amount]/[Make Whole Amount]/ [•]
- (If Make Whole Amount is applicable. Specify the following:)
- [Determination Date: [•]]

- Quotation Time: [•]
- Redemption Margin: [•]
- Reference Bond: [•]

(iii) If redeemable in part:

- (a) Minimum Redemption Amount: [•] per Calculation Amount
- (b) Maximum Redemption Amount [•] per Calculation Amount

(iv) Notice period: [•]

18. Put Option [Applicable/Not Applicable]

(If not applicable, delete the remaining subparagraphs of this paragraph)

(i) Optional Redemption Date(s): [•]

(ii) Optional Redemption Amount(s) of each Instrument and method, if any, of calculation of such amount(s): [•] per Calculation Amount

(iii) Notice period: [•]

19. Final Redemption Amount of each Instrument [•] per Calculation Amount

20. Early Redemption Amount [•] per Calculation Amount

Early Redemption Amount(s) per Calculation Amount payable on redemption for taxation reasons or on event of default or other early redemption and/or the method of calculating the same (if required or if different from that set out in the Conditions):

GENERAL PROVISIONS APPLICABLE TO THE INSTRUMENTS

21. **Form of Instruments:** **Bearer Instruments:**¹
- [Temporary Global Instrument exchangeable for a Permanent Global Instrument which is exchangeable for Definitive Instruments on [•] days' notice/at any time/in the limited circumstances specified in the Permanent Global Instrument]
- [Temporary Global Instrument exchangeable for Definitive Instrument on [•] days' notice]
- [Permanent Global Instrument exchangeable for Definitive Instruments on [•] days' notice/at any time/in the limited circumstances specified in the Permanent Global Instrument]
- [SIS Instruments]
- [N.B. The exchange upon notice/at any time options should not be expressed to be applicable if the Specified Denomination of the Instruments in paragraph 6 includes language substantially to the following effect: "[euro 100,000] and integral multiples of [euro 1,000] in excess thereof up to and including [euro 199,000]."*
- Furthermore, such Specified Denomination construction is not permitted in relation to any issue of Instruments which is to be represented on issue by a Temporary Global Instrument exchangeable for Definitive Instrument.]*
- [Registered Instruments]**
- [Global Registered Instrument exchangeable for Individual Certificates on [•] days' notice/at any time/in the limited circumstances described in the Global Registered Instrument]
- [and
- Global Registered Instrument [(U.S./Euro [•] principal amount)] registered in the name of a nominee for [a common depositary for Euroclear and Clearstream, Luxembourg/a common safekeeper for Euroclear and Clearstream, Luxembourg (that is, held under the New Safekeeping Structure (NSS))]
22. **New Global Note:** [Yes] [No]
23. **Additional financial centre(s) or other special provisions relating to payment dates:** [Not Applicable/give details.
- Note that this paragraph relates to the date and place of payment, and not interest period end dates, to which sub paragraphs 15(ii) and 16(ii) relate]*

¹ Instruments issued by ABB USA may only be issued in registered form, except in the case of SIS Instruments in which case such Instruments shall be issued under procedures which result in the issuance of such Instruments as being in registered form for US tax purposes.

24. Talons for future Coupons or Receipts to be attached to Definitive Instruments (and dates on which such Talons mature): [Yes/No. *If yes, give details*]
25. Details relating to Partly Paid Instruments: amount of each payment comprising the Issue Price and date on which each payment is to be made [and consequences (if any) of failure to pay, including any right of the Issuer to forfeit the Instruments and interest due on late payment]: [Not Applicable/*give details*]
26. Details relating to Instalment Instruments: amount of each instalment, date on which each payment is to be made: [Not Applicable/*give details*]
27. Other final terms: [Not Applicable/*give details*]
28. Relevant Benchmark[s]: [LIBOR / EURIBOR / [●]] is provided by [administrator legal name]][repeat as necessary].
- [As at the date hereof, [[administrator legal name] appears] / [does not appear]][repeat as necessary] in the register of administrators and benchmarks established and maintained by ESMA pursuant to Article 36 (*Register of administrators and benchmarks*) of Regulation (EU) 2016/1011, as amended]/
- [As far as the Issuer is aware, as at the date hereof, [LIBOR / EURIBOR / [●]] does not fall within the scope of Regulation (EU) 2016/1011, as amended]/
- [As far as the Issuer is aware, the transitional provisions in Article 51 of Regulation (EU) 2016/1011, as amended apply, such that [name of administrator] is not currently required to obtain authorisation/registration (or, if located outside the European Union, recognition, endorsement or equivalence)]/
- [Not Applicable]

DISTRIBUTION

29. (i) If syndicated, names of Managers: [Not Applicable/*give names*]
- (ii) Stabilising Manager(s) (if any): [Not Applicable/*give name*]
30. If non-syndicated, name of Dealer: [Not Applicable/*give name*]
31. U.S. Selling Restrictions: [Reg. S Compliance Category [●]];

(In the case of Bearer Instruments) - [TEFRA C/TEFRA D/ TEFRA not applicable]²

(In the case of Registered Instruments) - Not Applicable

32. Prohibition of Sales to EEA Retail Investors: [Applicable/Not Applicable]

(If the Instruments clearly do not constitute "packaged" products, "Not Applicable" should be specified. If the Instruments may constitute "packaged" products and no KID will be prepared, "Applicable" should be specified.)

33. Additional selling restrictions: [Not Applicable/give details]

Material Change

Save as disclosed in the Information Memorandum and these Final Terms, there has been no material change in the assets and liabilities, financial position and profits and losses of the Issuer or ABB Ltd since [insert date of the most recently published audited financial statements].

[Listing Application

These Final Terms comprise the final terms required to list and have admitted to trading the issue of Instruments described herein pursuant to the U.S.\$8,000,000,000 Programme for the Issuance of Debt Instruments of [ABB Finance B.V.]/ [ABB Finance (USA) Inc.] on [the Euro MTF Market of the Luxembourg Stock Exchange]/[SIX Swiss Exchange].]

Responsibility Statement

The Issuer and ABB Ltd accept responsibility for the information contained in these Final Terms. The Issuer and (in relation to the information contained herein relating to ABB Ltd) ABB Ltd confirm that to the best of their knowledge, the information is correct and no material facts or circumstances have been omitted. [(Relevant third party information) has been extracted from (specify source)]. The Issuer and ABB Ltd confirm that such information has been accurately reproduced and that, so far as it is aware, and is able to ascertain from information published by (specify source), no facts have been omitted which would render the reproduced information inaccurate or misleading.]

Signed on behalf of [ABB Finance B.V.]/ [ABB Finance (USA) Inc.]

By:

Duly authorised

Signed on behalf of ABB Ltd

By:

Duly authorised

² Instruments issued by ABB USA may only be issued in registered form, except in the case of SIS Instruments in which case such Instruments shall be issued under procedures which result in the issuance of such Instruments as being in registered form for US tax purposes.

PART B – OTHER INFORMATION

LISTING

1. (i) Listing [Application has been made by the Issuer (or on its behalf) for the Instruments to be admitted to listing on [the Official List of the Luxembourg Stock Exchange/SIX Swiss Exchange] with effect from [•].] [Not Applicable.]
- (ii) Admission to trading [Application has been made for the Instruments to be admitted to trading on [the Luxembourg Stock Exchange's Euro MTF Market/SIX Swiss Exchange] with effect from [•]/Not Applicable]
- (The Information Memorandum has not been approved as a base prospectus for the purposes of an admission to trading of Instruments on any market in the European Economic Area which has been designated as a regulated market for the purposes of the Prospectus Directive or an offer to the public in the European Economic Area)*
- (iii) [First trading day: [Only required for Instruments listed on SIX Swiss Exchange]]
- (iv) [Expected last trading day: [Only required for Instruments listed on SIX Swiss Exchange]]
- (v) [Swiss listing agent (recognized representative according to article 43 of the listing rules of SIX Swiss Exchange): [Only required for Instruments listed on SIX Swiss Exchange]]

RATINGS

2. The Instruments to be issued have been rated: [[Standard & Poor's]*: [•]
- [[Moody's]*: [•]
- [[Other]*: [•]]

** The exact legal name of the rating agency entity providing the rating should be specified.*

(The above disclosure should reflect the rating allocated to Instruments of the type being issued under the Programme generally or, where the issue has been specifically rated, that rating.)

INTERESTS OF NATURAL AND LEGAL PERSONS INVOLVED IN THE ISSUE/OFFER

3. Need to include a description of any interest, including conflicting ones, that is material to the issue/offer, detailing the persons involved and the nature of the interest. May be satisfied by the inclusion of the following statement:

"Save as discussed in "*Subscription and Sale*", so far as the Issuer is aware, no person involved in the offer of the Instruments has an interest material to the offer."

REASONS FOR THE OFFER, ESTIMATED NET PROCEEDS AND TOTAL EXPENSES RELATED TO ADMISSION TO TRADING

4. [(i) Reasons for the offer [•] / [The Instruments are intended to be issued as Green Bonds *[further particulars specified below]*]
- (See "Use of Proceeds" wording in Information Memorandum or specify here – if reasons for offer different from making profit and/or hedging certain risks will need to include those reasons here.)*
- [(ii)] Estimated net proceeds: [•]
- [(iii)] Estimated total expenses related to the admission to trading: [•]

[FIXED RATE INSTRUMENTS ONLY – YIELD]

5. Indication of yield: [•]
- Calculated as *[include details of method of calculation in summary form]* on the Issue Date.
- As set out above, the yield is calculated at the Issue Date on the basis of the Issue Price. It is not an indication of future yield.]

OPERATIONAL INFORMATION

6. (i) ISIN: [•]
- (ii) Common Code: [•]
- (iii) Swiss Security Number: [•]
- (iv) FISN: [See the website of the Association of National Numbering Agencies (ANNA) or alternatively sourced from the responsible National Numbering Agency that assigned the ISIN /Not Applicable / Not Available]
- (v) CFI code: [See the website of the Association of National Numbering Agencies (ANNA) or alternatively sourced from the responsible National Numbering Agency that assigned the ISIN / Not Applicable / Not Available]
- (If the FISN and/or CFI code is not required or requested, it/they should be specified to be "Not Applicable")*
- (vi) Any clearing system(s) other than Euroclear Bank SA/NV and Clearstream Banking, S.A. and the relevant identification number(s): [Not Applicable/give name(s) and number(s)]
- (vii) Delivery: Delivery [against/free of] payment

- (viii) Names and addresses of additional Paying Agent(s) (if any): [•]
- (ix) Name and addresses of Swiss Paying Agent(s): [•]
- (x) Name and address of the Determination Agent: *[[Name] shall be the Determination Agent]*
- (xi) Intended to be held in a manner which would allow Eurosystem eligibility: [Yes][No][Not Applicable]

[Note that the designation "yes" simply means that the Instruments are intended upon issue to be deposited with one of the ICSDs as common safekeeper [[, and registered in the name of a nominee of one of the ICSDs acting as common safekeeper,] *[include this text for registered instruments]*] and does not necessarily mean that the Instruments will be recognised as eligible collateral for Eurosystem monetary policy and intra-day credit operations by the Eurosystem either upon issue or at any or all times during their life. Such recognition will depend upon the ECB being satisfied that Eurosystem eligibility criteria have been met.] *[include this text if "yes" selected in which case [the] [bearer] Global Instruments must be issued in NGN form]*

[No. Whilst the designation is specified as "no" at the date of these Final Terms, should the Eurosystem eligibility criteria be amended in the future such that the Instruments are capable of meeting them the Instruments may then be deposited with one of the ICSDs as common safekeeper [[, and registered in the name of a nominee of one of the ICSDs acting as common safekeeper,] *[include this text for registered Instruments]*]. Note that this does not necessarily mean that the Instruments will be recognised as eligible collateral for Eurosystem monetary policy and intra day credit operations by the Eurosystem at any time during their life. Such recognition will depend upon the ECB being satisfied that Eurosystem eligibility criteria have been met.] *[include this text if no" selected in which case [the] [bearer] Global Instruments must not be issued in NGN form]*

SUMMARY OF PROVISIONS RELATING TO THE INSTRUMENTS WHILE IN GLOBAL FORM

Euroclear and/or Clearstream, Luxembourg

In relation to any Tranche of Instruments represented by a Global Instrument in bearer form (except in respect of SIS Instruments), references in the Terms and Conditions of the Instruments to "**Holder**" are references to the bearer of the relevant Global Instrument which, for so long as the Global Instrument is held by a depositary or a common depositary, in the case of a CGN, or a common safekeeper, in the case of an NGN for Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system, will be that depositary or common depositary or, as the case may be, common safekeeper.

In relation to any Tranche of Instruments represented by a Global Registered Instrument, references in the Terms and Conditions of the Instruments to "**Holder**" are references to the person in whose name such Global Registered Instrument is for the time being registered in the Register which, for so long as the Global Registered Instrument is held by or on behalf of a depositary or a common depositary or a common safekeeper for Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system, will be that depositary or common depositary or common safekeeper or a nominee for that depositary or common depositary or common safekeeper.

Each of the persons shown in the records of Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system as being entitled to an interest in a Global Instrument or a Global Registered Instrument (each an "**Accountholder**") must look solely to Euroclear and/or Clearstream, Luxembourg and/or such other relevant clearing system (as the case may be) for such Accountholder's share of each payment made by the relevant Issuer to the Holder of such Global Instrument or Global Registered Instrument and in relation to all other rights arising under such Global Instrument or Global Registered Instrument. The extent to which, and the manner in which, Accountholders may exercise any rights arising under the Global Instrument or Global Registered Instrument will be determined by the respective rules and procedures of Euroclear and Clearstream, Luxembourg and any other relevant clearing system from time to time. For so long as the relevant Instruments are represented by a Global Instrument or Global Registered Instrument, Accountholders shall have no claim directly against the relevant Issuer in respect of payments due under the Instruments and such obligations of the relevant Issuer will be discharged by payment to the Holder of such Global Instrument or Global Registered Instrument.

SIX SIS

SIS Instruments will be represented exclusively by a Permanent Global Instrument which shall be deposited with SIX SIS. Neither the relevant Issuer nor any Holder of SIS Instruments will at any time have the right to effect or demand the conversion of the Permanent Global Instrument representing such SIS Instruments into, or the delivery of, Instruments in definitive or uncertificated form. Holders of SIS Instruments do not have the right to request the printing and delivery of a Definitive Instrument. Once the Permanent Global Instrument is deposited with the SIX SIS and entered into the accounts of one or more participants of SIX SIS, the SIS Instruments represented thereby will constitute intermediated securities (*Bucheffekten*) within the meaning of the Swiss Federal Intermediated Securities Act (*Bucheffektengesetz*) ("**Intermediated Securities**"). The records of SIX SIS will determine the number of SIS Instruments held through each participant in SIX SIS. In respect of the SIS Instruments held in the form of Intermediated Securities, the holders of such SIS Instruments will be the persons holding such SIS Instruments in a securities account (*Effektenkonto*) or, in the case of intermediaries (*Verwahrungsstellen*), the intermediaries (*Verwahrungsstellen*) holding such SIS Instruments in a securities account (*Effektenkonto*).

Conditions applicable to Global Instruments - General

Each Global Instrument and Global Registered Instrument will contain provisions which modify the Terms and Conditions of the Instruments as they apply to the Global Instrument or Global Registered Instrument. The following is a summary of certain of those provisions:

Payments: All payments in respect of the Global Instrument or Global Registered Instrument which, according to the Terms and Conditions of the Instruments, require presentation and/or surrender of an Instrument, Certificate or Coupon will be made against presentation and (in the case of payment of principal in full with all interest accrued thereon) surrender of the Global Instrument or Global Registered Instrument to or to the order of any Paying Agent and will be effective to satisfy and discharge the corresponding

liabilities of the relevant Issuer in respect of the Instruments. On each occasion on which a payment of principal or interest is made in respect of the Global Instrument (except in respect of SIS Instruments), the relevant Issuer shall procure that in respect of a CGN the payment is noted in a schedule thereto and in respect of an NGN the payment is entered *pro rata* in the records of Euroclear and Clearstream, Luxembourg.

Title: For so long as the respective Permanent Global Instrument remains deposited with SIX SIS, the SIS Instruments may only be transferred by the entry of the transferred SIS Instruments in a securities account of the transferee.

Relevant Financial Centre Day: In the case of a Global Instrument, or a Global Registered Instrument, shall be, if the currency of payment is Euro, any day which is a TARGET Business Day and a day on which dealings in foreign currencies may be carried on in each (if any) additional financial centre specified in the Final Terms; or, if the currency of payment is not Euro, any day which is a day on which dealings in foreign currencies may be carried on in the Relevant Financial Centre of the currency of payment and in each (if any) additional financial centre specified in the Final Terms.

Payment Record Date: Each payment in respect of a Global Registered Instrument will be made to the person shown as the holder in the Register at the close of business (in the relevant clearing system) on the Clearing System Business Day before the due date for such payment (the "**Record Date**") where "**Clearing System Business Day**" means a day on which each clearing system for which the Global Registered Instrument is being held is open for business.

Exercise of put option: In order to exercise the option contained in Condition 6.06 (*Optional Early Redemption (Put)*) the bearer of the Permanent Global Instrument or the Holder of a Global Registered Instrument must, within the period specified in the Conditions for the deposit of the relevant Instrument and put notice, give written notice of such exercise to the Fiscal Agent specifying the principal amount of Instruments in respect of which such option is being exercised. Any such notice will be irrevocable and may not be withdrawn.

Partial exercise of call option: In connection with an exercise of the option contained in Condition 6.03 (*Optional Early Redemption (Call)*) in relation to some only of the Instruments, the Permanent Global Instrument or Global Registered Instrument may be redeemed in part in the principal amount specified by the relevant Issuer in accordance with the Conditions and the Instruments to be redeemed will not be selected as provided in the Conditions but in accordance with the rules and procedures of Euroclear and Clearstream, Luxembourg (to be reflected in the records of Euroclear and Clearstream, Luxembourg as either a pool factor or a reduction in principal amount, at their discretion) or in accordance with the standard practices of SIX SIS in respect of SIS Instruments.

Notices: Notwithstanding Condition 14 (*Notices*), while all the Instruments are represented by a Permanent Global Instrument (or by a Permanent Global Instrument and/or a Temporary Global Instrument) or a Global Registered Instrument and the Permanent Global Instrument is (or the Permanent Global Instrument and/or the Temporary Global Instrument are), or the Global Registered Instrument is, deposited with a depository or a common depository for Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system or a common safekeeper, notices to Holders may be given by delivery of the relevant notice to Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system and, in any case, such notices shall be deemed to have been given to the Holders in accordance with Condition 14 (*Notices*) on the date of delivery to Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system, except that, (i) for so long as such Instruments are admitted to trading on the Luxembourg Stock Exchange and it is a requirement of applicable law or regulations, such notices shall also be published in a leading newspaper having general circulation in Luxembourg (which is expected to be *Luxemburger Wort*) or published on the website of the Luxembourg Stock Exchange (www.bourse.lu) and (ii) for so long as any Instruments are listed on SIX Swiss Exchange and so long as the rules of SIX Swiss Exchange so require, all notices in respect of such Instruments will be validly given without cost to the Holders of the Instruments either (a) by means of electronic publication on the internet website of SIX Swiss Exchange (www.six-swiss-exchange.com), where notices are currently published under the address www.six-swiss-exchange.com/news/official_notices/search_en.html or (b) otherwise in accordance with the regulations of SIX Swiss Exchange.

GOVERNING LAW AND PLACE OF JURISDICTION

According to Condition 19 (*Law and Jurisdiction*) of the Instruments (set out in this Information Memorandum), the Instruments and any non-contractual obligations arising out of or in connection with them are governed by English law, each Issuer has submitted to the non-exclusive jurisdiction of the courts of England and in addition to an alternative (also non-exclusive) place of jurisdiction of the courts of the Canton of Zurich, the place of jurisdiction being Zurich 1, and the Guarantee is governed by Swiss law and the Guarantor has submitted to the exclusive jurisdiction of the courts of the Canton of Zurich, the place of jurisdiction being Zurich 1.

USE OF PROCEEDS

The net proceeds from the issuance of Instruments will be used for general financing purposes within the ABB Group or as otherwise specified in the Final Terms but at all times outside Switzerland, except that the use in Switzerland is permitted up to the amount accepted by the Swiss Federal Tax Administration according to their practice published on February 5, 2019, and otherwise to the extent use in Switzerland is permitted under the Swiss taxation laws in force from time to time without payments in respect of the Instruments becoming subject to withholding or deduction for Swiss withholding tax as a consequence of such use of proceeds in Switzerland.

RELATIONSHIP WITH ABB LTD

General

Each of ABB Netherlands and ABB USA is an indirect wholly-owned subsidiary of the Guarantor.

The Guarantor has guaranteed the obligations of each of the Issuers under and in relation to the Instruments issued under the Programme. Holders of the Instruments should look solely to the Guarantee in respect of any obligation of the Guarantor under and in relation to the Instruments. For further information see "*Terms and Conditions of the Instruments – Status and Guarantee of the Instruments*", "*Description of ABB Finance B.V.*" and "*Description of ABB Finance (USA) Inc.*".

DESCRIPTION OF ABB LTD AND THE ABB GROUP

ABB is a pioneering technology leader with a comprehensive offering for digital industries. With a history of innovation spanning more than 130 years, ABB is today a leader in digital industries with four customer-focused, globally leading businesses: Electrification, Industrial Automation, Motion, and Robotics & Discrete Automation, supported by its common ABB Ability™ digital platform. ABB's market-leading Power Grids business will be divested to Hitachi in 2020.

ABB operates in more than 100 countries with about 147,000 employees.

Recent Developments

On December 17, 2018, ABB announced its new strategy, with the company proposing fundamental actions to focus, simplify and lead in digital industries, for enhanced customer value and shareholder returns.

ABB announced the sale of its Power Grids business, expanding its existing partnership with Hitachi Ltd ("**Hitachi**") and enabling ABB to increase its focus on digital industries, which is a rapidly developing market offering attractive growth prospects. The divestment of 80.1 percent of the Power Grids business, valuing the business at \$11 billion, is expected to be completed in the first half of 2020, following the receipt of customary regulatory approvals. As this divestment represents a strategic shift that will have a major effect on ABB's operations and financial results, the results of operations for the Power Grids business are presented in the ABB Group Annual Report 2018, as discontinued operations, and the assets and liabilities are reflected as held-for-sale for all periods presented.

ABB also announced its intention to simplify its business model through the implementation of a new organizational structure driven by its business. The new structure provides each business with full operational ownership of products, business support functions, research and development, and geographic territories. The businesses will be the single interface to customers, maximising proximity and speed. The remaining Group-level corporate activities will primarily focus on Group strategy, portfolio and performance management, capital allocation, core technologies and the ABB Ability™ digital platform.

In line with the announced changes, as of April 1, 2019 ABB operates four, customer-focused, entrepreneurial businesses:

- ***Electrification***

The Electrification business provides a complete portfolio of innovative products, digital solutions and services from substation to socket, pointing the way to a future of safe, smart and sustainable electrification. The President of the business is Executive Committee member Tarak Mehta;

- ***Industrial Automation***

The Industrial Automation business serves customers in process and hybrid industries with its integrated automation solutions across process, electrical and motion, measurement and analytics as well as marine and turbocharging solutions that leverage its leading technologies including its "number one" distributed control systems ("**DCS**"), broad digital portfolio, deep industry expertise, largest installed base and vast global footprint. The President of the business is Executive Committee member Peter Terwiesch;

- ***Motion***

ABB's newly created Motion business provides customers with a comprehensive range of innovative, energy-efficient electrical motors, generators, drives and services, as well as integrated digital powertrain solutions. It will leverage economies of scale as the global "number one" in its market, writing the future of smart motion. The President of the business is Morton Wierod who joined the Executive Committee on April 1, 2019;

- ***Robotics & Discrete Automation***

The Robotics & Discrete Automation business combines ABB's machine and factory automation business, mainly B&R, with the Group's leading robotics platform. It is uniquely positioned to capture the opportunities associated with the "Factory of the Future" by writing the future of

flexible manufacturing and smart machinery The President of the business is Executive Committee member Sami Atiya.

As part of the simplification, ABB also announced the planned elimination of the country and regional structures within the current matrix organization, including the elimination of the three regional Executive Committee roles.

The new ABB will continue to have a strong presence globally, well balanced across major geographies, and will continue to benefit from significant scale advantages with approximately \$29 billion in annual revenues.

Corporate Information

ABB Ltd is a Swiss corporation (*Aktiengesellschaft*), incorporated on March 5, 1999. ABB Ltd is registered with the commercial register of the Canton of Zurich, Switzerland under the number CHE-101.049.653 and operates under the laws of Switzerland including the Swiss Code of Obligations.

ABB Ltd's principal corporate offices are located at Affolternstrasse 44, CH-8050 Zurich, Switzerland and its telephone number is +41-43-317-7111.

ABB Ltd is the ultimate parent company of the ABB Group. Its sole shareholding is in ABB Asea Brown Boveri Ltd which directly or indirectly owns the other companies in the ABB Group. A list of subsidiaries of ABB Ltd can be found in Exhibit 8.1 of the Form 20-F for the year ending December 31, 2018. ABB Ltd receives most of its income through dividend payments from its wholly-owned subsidiary ABB Asea Brown Boveri Ltd, which is the operational holding company of the ABB Group. ABB Ltd's shares are listed on SIX Swiss Exchange, the NASDAQ OMX Stockholm Exchange and the New York Stock Exchange (where its shares are traded in the form of American depositary shares ("ADS") - each ADS representing one registered ABB share).

Under the Swiss Stock Exchange Act we disclose shareholders that reach, exceed or fall below the thresholds of 3%, 5%, 10%, 15%, 20%, 25%, 33.33%, 50% or 66.66% of the voting rights. An additional disclosure requirement exists under the Swiss Federal Code of Obligations to disclose shareholders and their shareholdings if they hold more than 5% of all voting rights. The shareholders holding 3% or more of ABB Ltd's total share capital and voting rights as of December 31, 2018, were Investor AB, Sweden, Cevian Capital II GP Limited, Jersey, and BlackRock Inc., US. At December 31, 2018, to the best of ABB's knowledge, no other shareholder held 3% or more of ABB's total share capital and voting rights as registered in the Commercial Register on that date.

On December 31, 2018, ABB's ordinary share capital (including treasury shares) as registered with the Commercial Register amounted to CHF 260,177,791.68, divided into 2,168,148,264 fully paid registered shares with a par value of CHF 0.12 per share.

Business Purpose

As set forth in Article 2 of its Articles of Incorporation dated March 29, 2018, the purpose of ABB Ltd is to hold interests in business enterprises, particularly in enterprises active in the areas of industry, trade and services. ABB Ltd may acquire, encumber, exploit or sell real estate and intellectual property rights in Switzerland and abroad and may also finance other companies. ABB Ltd may engage in all types of transactions and may take all measures that appear appropriate to promote, or that are related to, its purpose. Finally, in pursuing its purpose, ABB Ltd shall strive for long-term sustainable value creation.

Organisational Structure at December 31, 2018

At December 31, 2018 ABB managed its business based on a divisional structure comprised of the three divisions that are discussed in more detail below: Electrification Products, Industrial Automation and Robotics and Motion. As described in "*Recent Developments*" above, the Power Grids business, is now reported as discontinued operations in our Consolidated Financial Statements as provided in the Annual

Report on Form 20-F filed with the United States Securities and Exchange Commission on March 28, 2019. Revenue figures presented in this section are before interdivisional eliminations.

- ***Electrification Products Division***

The Electrification Products division provides products, services and connected solutions throughout the electrical value chain from the substation to the point of consumption across the world. The innovations from this business enable safer and more reliable electrical flow, with a full range of low- and medium-voltage products and solutions for intelligent protection and connection as well as pre-engineered packaged solutions and services tailored to customers' needs. The portfolio includes modular substation packages, distribution automation products, switchgear, circuit breakers, measuring and sensing devices, control products, solar power solutions, EV charging infrastructure, wiring accessories, and enclosures and cabling systems, including KNX systems (the recognized global standard for home and building control) and data communication networks. The division delivers products to customers through a global network of channel partners and end-customers. Most of the division's revenue is derived from sales through distributors, original equipment manufacturers ("**OEMs**"), engineering, procurement, construction ("**EPC**") contracting companies, system integrators, utilities and panel builders, with some direct sales to end users (utilities, customers in industries, transport & infrastructure segments) and to other ABB divisions.

The Electrification Products division had approximately 55,100 employees on December 31, 2018, and generated \$11.7 billion of revenues in 2018.

On June 30, 2018, ABB acquired General Electric Industrial Solutions ("**GEIS**"). The integration of GEIS into the Electrification Products division commenced during the second half of 2018.

- ***Industrial Automation Division***

The Industrial Automation division offers customers solutions that are designed to optimize the productivity, energy efficiency and safety of their industrial processes and operations by combining the division's integrated control products, systems and service offerings with deep domain knowledge and expertise of each end market. Solutions include turnkey engineering, control systems, Human Machine Interfaces ("**HMI**") and integrated safety technology, measurement products, lifecycle services, outsourced maintenance and industry-specific products such as electric propulsion for ships, Azipods, mine hoists, turbochargers and pulp and paper quality control equipment. The systems can link various processes and information flows allowing customers to manage their entire manufacturing and business process based on real-time facility or plant information. Additionally, the systems allow customers to increase production efficiency, optimize their assets and reduce environmental impact.

The Industrial Automation division offerings are available as separately sold products or as part of a total automation, electrification and/or instrumentation system. In this event, products and solutions from the Robotics and Motion and Electrification Products divisions are channeled through the Industrial Automation division. The division's technologies are sold primarily through direct sales forces as well as third-party channels.

The division had approximately 25,700 employees as of December 31, 2018, and generated revenues of \$7.4 billion in 2018.

- ***Robotics and Motion Division***

The Robotics and Motion division provides products, solutions and related services that increase industrial productivity and energy efficiency. Our key products such as motors, generators, drives and robotics provide power, motion and control for a wide range of automation applications.

The Robotics business offers robots, controllers, software systems, as well as complete robot automation solutions and a comprehensive range of advanced services for automotive and Tier One OEMs as well as for general industry. Typical robotic applications in general industry include welding, material handling, machine tending, painting, picking, packing, palletizing and small parts assembly automation.

The Motors and Generators business supplies a comprehensive range of electrical motors, generators, and mechanical power transmission products. The range of electrical motors includes high efficiency motors that conform to leading environmental and Minimum Energy Performance Standards ("MEPS"). The business unit manufactures synchronous motors for the most demanding applications and a full range of low- and high-voltage induction motors, for both International Electrotechnical Commission ("IEC") and National Electrical Manufacturers Association ("NEMA") standards. The business unit offers digitalized asset management solutions that monitor motor performance and provide vital intelligence on key operating parameters.

The Drives business provides low-voltage and medium-voltage drives and systems for industrial, commercial and residential applications. Drives provide speed, torque and motion control for equipment such as fans, pumps, compressors, conveyors, centrifuges, mixers, hoists, cranes, extruders, printing and textile machines. They are used in industries such as building automation, marine, power, transportation, food and beverage, metals, mining, and oil and gas. The business unit also supplies traction converters (propulsion converters and auxiliary converters) for the transportation industry and wind converters.

The Robotics and Motion division had approximately 27,600 employees as of December 31, 2018, and generated \$9.1 billion of revenues in 2018.

- ***Discontinued Operations: Power Grids business***

The Power Grids business is a global leader in power technologies and aspires to be the partner of choice for enabling a stronger, smarter and greener grid. The Power Grids business provides product, system, software and service solutions across the power value chain that are designed to meet the growing demand for electricity with minimum environmental impact. These solutions support utility, industry and transport & infrastructure customers to plan, build, operate and maintain their power infrastructure. They are designed to facilitate the safe, reliable and efficient integration, transmission and distribution of bulk and distributed energy generated from conventional and renewable sources.

Approximately two-thirds of the revenues in the business are generated from utility customers and the remaining portion is generated from industry and transport & infrastructure customers. Power Grids has a worldwide customer base, with a wide geographic spread of revenues across the Americas, Europe and AMEA. The business also has a globally diversified and well-balanced manufacturing and engineering footprint. Direct sales account for the majority of total revenues generated by the business while external channel partners such as EPCs, wholesalers, distributors and OEMs account for the rest.

The Power Grids business is reported as discontinued operations in the Consolidated Financial Statements as provided in the Annual Report on Form 20-F filed with the United States Securities and Exchange Commission on March 28, 2019.

Our Markets

Our divisions as organised at December 31, 2018 operated across three key markets:

- ***Utilities Market***

ABB focuses on delivering solutions that match the changing needs of utility customers with a complete offering for transmission and distribution. The Energy Revolution opens up numerous opportunities, and more than 30 percent of the market ABB operates in are high-growth segments within the sector, such as grid automation, high-voltage direct current ("HVDC"), software, grid control systems and micro-grids. Generation, transmission and distribution are being unbundled, long-standing monopolies now have competitors and new entrants (e.g. pension funds, insurance funds, project developers) are investing in the sector. Many traditional utilities have reinvented themselves; some now focus purely on renewables, others on providing additional energy services to the consumers they serve.

Utilities continued to make selective investments in 2018, adding new capacity in emerging markets, upgrading aging power infrastructure in mature markets and integrating new renewable

energy capacity globally. They are also investing in automation and control solutions to enhance the stability of the grid and thus demand for services, including ABB Ability™ solutions, gained traction during the year.

ABB won orders in several key geographies, including Australia and New Zealand, to upgrade the control and protection system of existing HVDC links with advanced digitalization technologies. In addition, ABB was awarded multiple orders for ABB Ability™ digital substations, for example, to upgrade the world's largest substation in Belarus. A significant framework agreement for grid integration and automation solutions was also won from Ørsted, the Danish power company currently installing the world's largest offshore wind farm in the United Kingdom's North Sea.

- ***Industry Market***

ABB serves production facilities and factories all around the world from process to discrete industries with a comprehensive automation portfolio including robotics. Industry customers are diverse in nature and may be publicly traded or privately held companies. Automation and digitalized solutions that achieve improved safety, uptime, energy efficiency and productivity are the intended hallmarks of ABB's offerings in this customer segment. The need for cutting-edge solutions to improve industrial performance continued to be an important demand driver for industry in 2018.

Investments in 2018 in robotics and machinery automation solutions from the automotive sector, notably for new EV manufacturing lines, from the food and beverage sector and other industries remained positive. Process industries, especially oil and gas, invested more in 2018 than in the prior year, although investments remained selective and concentrated on service and productivity improvements.

In robotics specifically, ABB's customer markets are successfully expanding into new market areas, for example, the logistics sector and small and medium size enterprises, particularly in the AMEA region.

- ***Transport & Infrastructure Market***

ABB's expertise provides efficient and reliable solutions for transport & infrastructure customers. We believe our offerings are key to transport customers that are focused on energy efficiency and reduced operating costs. Other major growth drivers for this customer segment are urbanization, the move to electrify transportation, and growth in data centers.

Demand in transport and infrastructure markets was solid in 2018. Demand for building automation solutions as well as solutions involving energy efficiency continued, while activity for specialty vessels, particularly cruise ships, was strong over the period. In rail, ABB won orders worth over \$100 million from Swiss train manufacturer Stadler to supply traction equipment for more than 160 trains serving urban, regional and long distance routes in Europe and the United States. Demand for hyper-scale data center solutions was strong during 2018, especially from U.S. and European based customers.

The development of EV charging markets accelerated sharply during 2018. ABB received multiple orders from customers in several countries across Europe and North America for EV charging infrastructure, including for the company's newest high voltage direct current ("DC") fast-charging station, the Terra HP. ABB now has more than 6,500 DC fast-charging stations installed across 60 countries.

ABB Board of Directors and Executive Committee at December 31, 2018

The following table presents the Board of Directors of ABB.

Name	Position	Principal activities performed outside ABB Ltd
Peter R. Voser	Chairman of the Board of Directors	Member of the boards of directors of Roche Holdings Ltd (Switzerland), IBM Corporation (U.S.), Catalyst (U.S.), a non-profit organization, and Temasek Holdings (Private) Limited (Singapore). Deputy chairman of the board of PSA International Pte Ltd (Singapore). Chairman of the board of trustees of the St. Gallen Foundation for International Studies.
Jacob Wallenberg	Vice Chairman	Chairman of the board of Investor AB (Sweden). Vice chairman of the boards of Telefonaktiebolaget LM Ericsson, FAM AB and Patricia Industries (all Sweden). Member of the boards of directors of Nasdaq, Inc. (U.S.) and the Knut and Alice Wallenberg Foundation (Sweden) as well as member of the nomination committee of SAS AB (Sweden).
Matti Alahuhta	Director	Chairman of the boards of Outotec Corporation and DevCo Partners Oy (both Finland). Member of the boards of directors of KONE Corporation (Finland) and AB Volvo (Sweden).
Gunnar Brock	Director	Chairman of the boards of Slättö Invest AB, Mölnlycke Health Care AB and Stena AB (all Sweden). Member of the boards of directors of Syngenta Ltd (Switzerland), Investor AB and Patricia Industries (both Sweden).
David Constable	Director	Member of the boards of directors of Rio Tinto plc (U.K.), Rio Tinto Limited (Australia) and Anadarko Petroleum Corporation (U.S.).
Frederico Fleury Curado	Director	Chief Executive Officer of Ultrapar Participações S.A. (Brazil). Member of the board of directors of Transocean Ltd. (Switzerland).
Lars Förberg	Director	Co-founder and managing partner of Cevian Capital. Chairman of the Human Practice Foundation (Denmark).
Jennifer Xin-Zhe Li	Director	Member of the boards of directors of Philip Morris International Inc. (U.S.), HSBC Asia (Hong Kong) and Flex Ltd (Singapore/U.S.). Founder and general partner of Changcheng Investment Partners (P.R.C.).
Geraldine Matchett	Director	Chief financial officer and member of the managing board of Royal DSM N.V. (The Netherlands).
David Meline	Director	Chief financial officer of Amgen Inc. (US).
Satish Pai	Director	Managing director and member of the board of directors of Hindalco Industries Ltd. (India).

The following table presents the Executive Committee of ABB at December 31, 2018.

Name	Position	Principal activities performed outside ABB Ltd
Ulrich Spiesshofer	Chief Executive Officer	None
Timo Ihamuotila	Chief Financial Officer	None
Jean-Christophe Deslarzes	Chief Human Resources Officer	Member of the board of directors of Adecco Group AG (Switzerland).
Diane de Saint Victor	General Counsel and Company Secretary	Member of the board of directors of the American Chamber of Commerce (France).
Tarak Mehta	President of the Electrification Products division	None
Sami Atiya	President of the Robotics and Motion division	None
Peter Terwiesch	President of the Industrial Automation division	Member of the board of directors of Metall Zug AG (Switzerland).
Claudio Facchin	President of the Power Grids division	None
Frank Duggan	President of the Europe region	None
Chunyuan Gu	President of the Asia, Middle East and Africa region	None
Greg Scheu	President of the Americas region	None

The business address for the members of the Board of Directors and the Executive Committee is ABB Ltd, Affolternstrasse 44, CH 8050 Zurich, Switzerland.

There are no conflicts of interests or save as disclosed on page 123 and F-55 (under the heading "Related Party Transactions") of the Annual Report on Form 20-F for the year ended December 31, 2018, potential conflicts of interest between the duties to ABB Ltd of each of the members of the Board of Directors and Executive Committee listed above and their private interests or other duties.

In line with the new organizational structure described in "*Recent Developments*" the following Executive Committee positions are effective April 1, 2019:

- *Electrification* – Tarak Mehta, previously President of the Electrification Products division, is now President of the Electrification business.
- *Industrial Automation* – Peter Terwiesch, previously President of the Industrial Automation division, is now President of the Industrial Automation business.
- *Robotics and Discrete Automation* – Sami Atiya, previously President of the Robotics and Motion division, is now President of the Robotics and Discrete Automation business.

- *Motion* – Morten Wierod has been appointed President of the Motion business and is now a member of the Executive Committee.
- *Power Grids* – Claudio Facchin will continue to serve as President of the Power Grids business. In this role he is tasked with leading the transition of the business to Hitachi, in addition to running it for ABB until closing of the transaction.

All business presidents report to Ulrich Spiesshofer, Chief Executive Officer.

On February 28, 2019 ABB also announced that Sylvia Hill is to succeed Jean-Christophe Deslarzes as Chief Human Resources Officer and member of the Executive Committee, effective June 1, 2019.

Communications

The official publication organ of the ABB Ltd is the Swiss Official Gazette of Commerce.

Dividends

The following dividends per share have been paid to the shareholders of ABB Ltd in respect of the following years:

<u>Year</u>	<u>CHF</u>	<u>Form of dividend</u>
2017	0.78	Payment out of retained earnings
2016	0.76	Payment out of retained earnings
2015	0.74	Payment through nominal value reduction
2014	0.72	Partly payment out of capital contribution reserves and partly through nominal value reduction
2013	0.70	Payment out of capital contribution reserves

On February 28, 2019, ABB announced that it will ask its shareholders to approve a dividend of CHF 0.80 per share at its 2019 annual general meeting.

SELECTED CONSOLIDATED FINANCIAL DATA OF THE ABB GROUP

The following table presents selected consolidated financial data of the ABB Group in accordance with U.S. GAAP and have been derived from our published Consolidated Financial Statements as provided in the Annual Report on Form 20-F filed with the United States Securities and Exchange Commission on March 28, 2019. Our Consolidated Financial Statements as of and for the year ended December 31, 2018, were audited by KPMG AG. Our Consolidated Financial Statements as of December 31, 2017, and for the year then ended were audited by Ernst & Young AG. In 2018 certain businesses were reclassified between continuing operations and discontinued operations. Financial information previously reported in 2017 has been recast to reflect the reclassification.

The following information should be read in conjunction with the Consolidated Financial Statements.

INCOME STATEMENT DATA:

	2018	2017
	<i>(\$ in millions, except per share data in \$)</i>	
Total revenues	27,662	25,196
Total cost of sales ⁽¹⁾	(19,118)	(17,350)
Gross profit	8,544	7,846
Selling, general and administrative expenses ⁽¹⁾	(5,295)	(4,765)
Non-order related research and development expenses ⁽¹⁾ ..	(1,147)	(1,013)
Other income (expense), net	124	162
Income from operations	2,226	2,230
Interest and dividend income	72	73
Interest and other finance expense	(262)	(234)
Non-operational pension (cost) credit ⁽¹⁾	83	33
Income from continuing operations before taxes	2,119	2,102
Provision for taxes	(544)	(583)
Income from continuing operations, net of tax	1,575	1,519
Income from discontinued operations, net of tax	723	846
Net income	2,298	2,365
Net income attributable to noncontrolling interests	(125)	(152)
Net income attributable to ABB	2,173	2,213
 <i>Amounts attributable to ABB shareholders:</i>		
Income from continuing operations, net of tax	1,514	1,441
Income from discontinued operations, net of tax	659	772
Net income	2,173	2,213
 <i>Basic earnings per share attributable to ABB shareholders:</i>		
Income from continuing operations, net of tax	0.71	0.67
Income from discontinued operations, net of tax	0.31	0.36
Net income	1.02	1.04
 <i>Diluted earnings per share attributable to ABB shareholders:</i>		
Income from continuing operations, net of tax	0.71	0.67
Income from discontinued operations, net of tax	0.31	0.36
Net income	1.02	1.03
 <i>Weighted-average number of shares outstanding (in millions) used to compute:</i>		
Basic earnings per share attributable to ABB shareholders	2,132	2,138
Diluted earnings per share attributable to ABB shareholders	2,139	2,148

BALANCE SHEET DATA:

	December 31,	
	2018	2017
	<i>(\$ in millions)</i>	
Cash and equivalents.....	3,445	4,526
Marketable securities and short-term investments.....	712	1,083
Total assets ⁽²⁾	44,441	43,458
Long-term debt (excluding current maturities of long-term debt)	6,587	6,682
Total debt ⁽³⁾	8,618	7,408
Common stock	188	188
Total stockholders' equity (including noncontrolling interests)	14,534	15,349

⁽¹⁾ In January 2018, the ABB group adopted an accounting standard update which changes how employers that sponsor defined benefit pension plans and other postretirement plans present the net periodic benefit cost in the income statement. As a result, ABB reclassified in prior periods certain net periodic pension and postretirement benefits costs/credits from Total cost of sales, Selling, general and administrative expenses and Non-order related research and development expenses to Non-operational pension (cost) credit. See "Note 2 Significant Accounting Policies - New accounting pronouncements" to our Consolidated Financial Statements as provided in the Annual Report on Form 20-F.

⁽²⁾ As of January 1, 2018, the ABB group adopted an accounting standard update in which certain advances from customers, previously reported as a reduction in Inventories, were reclassified to liabilities. As a result, total assets at December 31, 2017, have been restated. See "Note 2 Significant Accounting Policies - New accounting pronouncements" to our Consolidated Financial Statements as provided in the Annual Report on Form 20-F.

⁽³⁾ Total debt is equal to the sum of short-term debt (including current maturities of long-term debt) and long-term debt.

DESCRIPTION OF ABB FINANCE B.V.

Introduction

ABB Finance B.V. ("**ABB Netherlands**") was incorporated as a private company with limited liability (*besloten vennootschap met beperkte aansprakelijkheid*) for an indefinite duration under the laws of The Netherlands on December 23, 1986. ABB Netherlands has its corporate seat (*statutaire zetel*) in Rotterdam, The Netherlands, its registered office at George Hintzenweg 81, 3068 AX Rotterdam, The Netherlands and its telephone number is +31 10 4078911. ABB Netherlands is registered with the Dutch Commercial Register (*Handelsregister*) under registration number 33232125. Its articles of association (*Statuten*) are dated September 1, 2014.

ABB Netherlands is an indirect wholly-owned subsidiary of ABB Ltd. The ABB group of companies is more fully described under "*Description of ABB Ltd and the ABB Group*". ABB Netherlands has no subsidiaries.

According to article 2 of its articles of association, ABB Netherlands provides a range of treasury management services and acts as a financing vehicle for the ABB Group in the international capital markets. ABB Ltd has provided a guarantee in connection with the Instruments to be issued by ABB Netherlands under this Programme, which shall be the sole credit support in connection with the Instruments. See "*Relationship with ABB Ltd*".

ABB Netherlands's fiscal year is January 1 to December 31.

ABB Netherlands does not hold any of its own shares.

At December 31, 2018, the authorised capital of ABB Netherlands amounted to 100,000 ordinary shares (each with a par value of Euro 1), of which 20,103 shares had been issued and fully paid.

<u>Board of Directors</u>	<u>Position</u>	<u>Principal activities performed outside ABB Netherlands</u>
Urs Arnold	Director	ABB Group Treasurer
George Stewart	Director	Country Tax Manager, ABB Benelux
Stephan Husi	Director	Country CFO, ABB Benelux
Marta Wolodzko	Director	None

The business address of Urs Arnold is at ABB Asea Brown Boveri Ltd, Affolternstrasse 44, CH 8050 Zurich, Switzerland. The business address of George Stewart, Stephan Husi and Marta Wolodzko is at ABB Holdings B.V. / ABB Finance B.V., George Hintzenweg 81, 3068 AX Rotterdam, The Netherlands.

There are no conflicts of interests or potential conflicts of interests between the duties to ABB Netherlands of each of the members of the Board of Directors listed above and their private interests or other duties.

Recent Developments

The business of ABB Netherlands from December 31, 2018 up to the date of this Information Memorandum continued in substantially the same form as in 2018, providing financing services to the ABB Group. Between December 31, 2018 and the date of this Information Memorandum, ABB Netherlands repaid EUR 1,250 million notes on March 26, 2019 and issued commercial paper in an aggregate principal of EUR 300 million.

Notices of Meetings of Shareholders

Notices of meetings shall be given by means of letter to the shareholders at least fifteen days before the day on which the meeting is held.

Restrictions on the Transfer of Shares

Article 10 of the articles of association of ABB Netherlands regulates the restrictions on the transferability of ABB Netherlands shares.

Dividends

The following dividends have been paid to the shareholder of ABB Netherlands in respect of the year:

Year	USD
2017.....	2,000,000
2016.....	1,700,000
2015.....	1,900,000
2014.....	4,900,000
2013.....	1,700,000

The following pages 95 – 113 are extracted from ABB Netherlands's Annual Report 2018.

ABB FINANCE B.V.
BALANCE SHEET
December 31, 2018

(Before profit appropriation)

ASSETS

	Notes	2018 <i>USD '000</i>	2017* <i>USD '000</i>
Non-current assets			
<i>Financial fixed assets</i>			
Loans - related companies	4, 9	1,780,804	3,193,540
Marketable securities.....	5, 9	-	79,364
Derivative assets - related companies.....	8	13,125	-
Total non-current assets		<u>1,793,929</u>	<u>3,272,904</u>

Current assets

Loans - related companies	4, 9	1,929,437	-
Short-term deposits with banks	9	1,149,454	2,277,903
Marketable securities.....	5, 9	181,907	-
Derivative assets - related companies.....	8	11	-
Interest receivable	10	36,760	39,937
Cash and cash equivalents	3	51,787	51,453
Total current assets.....		<u>3,349,356</u>	<u>2,369,293</u>
Total assets		<u>5,143,285</u>	<u>5,642,197</u>

SHAREHOLDER'S EQUITY AND LIABILITIES

Shareholder's equity	6		
Share capital.....		23	24
Share premium		998	998
Retained earnings.....		850	809
Other reserves		4	3
Net result.....		3,283	2,041
Total shareholder's equity.....		<u>5,158</u>	<u>3,875</u>

Non-current liabilities

Debt - related companies.....	7, 9	-	79,989
Debt - third parties	7, 9	1,668,592	3,216,093
Derivatives liabilities - related companies.....	8	-	3,597
Total non-current liabilities		<u>1,668,592</u>	<u>3,299,679</u>

Current liabilities

Debt - related companies.....	7, 9	1,820,434	2,291,563
Debt - third parties	7, 9	1,602,989	2,880
Derivative liabilities - related companies	8	542	-
Interest payable	11	39,683	39,551
Tax accrual.....		50	52
Accrued liabilities		5,837	4,597
Total current liabilities		<u>3,469,535</u>	<u>2,338,643</u>
Total liabilities		<u>5,138,127</u>	<u>5,638,322</u>
Total shareholder's equity and liabilities		<u>5,143,285</u>	<u>5,642,197</u>

* The figures in the balance sheet have been conformed to the current year's presentation.
See accompanying notes.

ABB FINANCE B.V.
PROFIT AND LOSS ACCOUNT
Year ended December 31, 2018

	Notes	2018 <i>USD '000</i>	2017* <i>USD '000</i>
Interest income	13	82,233	56,782
Interest expense	13	(66,252)	(56,946)
Interest compensation	1	(9,140)	5,103
Foreign exchange gain (loss), net		(2,679)	(682)
Net interest result		4,162	4,257
Net gains (losses) on marketable securities	14	1,574	(603)
Result from financial transactions		5,736	3,654
Income from service fees	12	1,234	990
Operating expenses	15	(1,914)	(1,923)
Result before taxes		5,056	2,721
Income tax	17	(1,773)	(680)
Net result		3,283	2,041

* *The figures in the profit and loss account have been conformed to the current year's presentation. See accompanying notes.*

ABB FINANCE B.V.
NOTES TO FINANCIAL STATEMENTS
December 31, 2018

(Amounts in tables are expressed in thousands of U.S. dollars, unless otherwise indicated)

1. General

The Company, registered in Rotterdam with registry number 33232125 at the Dutch Chamber of Commerce, is a wholly-owned subsidiary of ABB Capital B.V., Rotterdam, the Netherlands, and a member of the world-wide group of related companies of ABB Ltd, Zurich, Switzerland. The Company is engaged primarily in funding and investment activities on behalf of the ABB Group. All transactions with related companies are made on an arm's length basis and have been disclosed in these financial statements.

The consolidated financial statements of the ultimate parent, ABB Ltd, Zurich, are available on the ABB Group's website (www.abb.com) and include the Consolidated Statements of Cash Flows. Consequently, the Company has not presented a cash flow statement in these financial statements.

The Company has the benefit of a "Keep-Well Agreement" with ABB Ltd, dated March 2012. Under the Keep-Well Agreement, ABB Ltd will (i) ensure that the Company has a net worth of at least USD 1 million, (ii) retain ownership (direct or indirect) of the Company as long as the Company has obligations from financial transactions which are not guaranteed by ABB Ltd, and (iii) under certain circumstances provide the Company with sufficient funds to meet obligations from financial obligations not guaranteed by ABB Ltd. The Keep-Well Agreement is not a guarantee by ABB Ltd of the payment of any indebtedness, liability or obligation of the Company. Holders of notes or other debt are not parties to the Keep-Well Agreement. The only parties to the Keep-Well Agreement are the Company and ABB Ltd. Consequently, the Keep-Well Agreement does not confer to any noteholders or holders of other debt any rights or claims against ABB Ltd. The Keep-Well Agreement will not be enforceable against ABB Ltd by anyone other than the Company (and/or its trustee, receiver, liquidator or administrator in the event of a bankruptcy or, as the case may be, moratorium).

Notes issued by the Company under the ABB Group's Euro Medium Term Note program for the issuance of up to USD 8 billion debt instruments and notes issued by the Company under the ABB Group's USD 2 billion Euro Commercial Paper program are guaranteed by ABB Ltd, whereby ABB Ltd guarantees to the holders of the notes the punctual payment of principal and interest.

In 2012, the Company entered into agreements with ABB Asea Brown Boveri Ltd., whereby, (i) the Company absorbs, and is compensated for, on a quarterly basis, any interest differential to market rates (positive or negative) on its intercompany lendings and borrowings (the interest differential, arises due to differing credit risks between the assets and liabilities) and (ii) the Company receives a remuneration for its service provider function related to the lending/borrowing activities in (i). In 2018, total compensation paid by the Company under these agreements amounted to USD 9.1 million (2017: total net compensation received USD 5.1 million) which was included in "Interest compensation" in the profit and loss account.

These financial statements are as at and for the year ended December 31, 2018.

Certain figures in the balance sheet, profit and loss account and the notes have been conformed to the current year's presentation.

2. Summary of significant accounting policies

Basis of presentation:

The financial statements have been prepared in accordance with Part 9 of Book 2 of the Civil Code of the Netherlands.

The accounting policies applied for the measurement of assets and liabilities and the determination of results are based on the historical cost convention, unless otherwise stated in this summary of significant accounting policies.

An asset is recognized in the balance sheet when it is probable that the expected future economic benefits attributable to the asset will flow to the Company and the asset has a cost price or a value which can be measured reliably.

A liability is recognized in the balance sheet when it is expected that the settlement of an existing obligation will result in an outflow of resources and the amount necessary to settle the obligation can be measured reliably. Provisions are included in the liabilities of the Company.

Assets and liabilities that are not recognized in the balance sheet are considered as off-balance sheet assets and liabilities.

An asset or liability is derecognized when a transaction results in all (or substantially all) of the rights to economic benefits and all (or substantially all) of the risks related to the asset or liability being transferred to a third party. In such cases, the results of the transaction are directly recognized in the profit and loss account, taking into account any provisions related to the transaction.

In preparing these financial statements, the Company presents its assets and liabilities at amortized cost, except securities (other than held-to-maturity) and derivatives which are stated at fair value with changes in fair value through the profit and loss account. Debt that is subject to a fair value hedge is held at amortized cost adjusted to fair value through the profit and loss account.

Income and expenses are recognized when they are probable and can be measured reliably. Income and expenses are reported in the periods to which they relate.

The Company's accounting records are maintained in U.S. dollars, as it is the functional currency of the Company's operations.

Related companies refer to group companies of ABB Ltd.

Going concern:

The financial statements have been prepared on a going concern basis.

Use of estimates:

In preparing these financial statements, management has made judgements, estimates and assumptions that affect the application of the accounting principles and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to estimates are recognized prospectively.

The following accounting policy is, in the opinion of management, the most critical in preparing these financial statements and requires judgements, estimates and assumptions:

- Fair value measurement.

Translation of foreign currencies:

Monetary assets, share capital and monetary liabilities denominated in foreign currencies are translated at the balance sheet date into U.S. dollars using year-end exchange rates. Transactions in foreign currencies are recorded at rates applicable at the transaction date. Exchange gains and losses resulting from translating monetary assets and liabilities denominated in foreign currencies are recognized in the profit and loss account. The exchange differences on the euro-denominated share capital are included in the "Other reserves" account in shareholder's equity.

Financial Instruments:

(a) ***General:***

These financial statements include the following financial instruments: loans, cash and cash equivalents, marketable securities, derivatives and debt.

Financial assets and liabilities are recognized in the balance sheet when the contractual risks or rewards with respect to the financial instrument arise.

Financial instruments are derecognized if a transaction results in substantially all of the contractual risks or rewards with respect to the financial instrument being transferred to a third party.

Financial instruments (and individual components of financial instruments) are presented in the financial statements in accordance with the economic substance of the contractual terms, that is, as a financial asset, financial liability or equity instrument.

Financial instruments are initially recognized at fair value, including discount or premium and directly attributable transaction costs. However, if financial instruments are subsequently measured at fair value through profit and loss, then directly attributable transaction costs are directly recognized in the profit and loss account at the initial recognition.

After initial recognition, financial instruments are valued in the manner described below.

- (b) ***Loans, short-term deposits with banks:***
In preparing its financial statements, the Company states all loans and short-term deposits with banks on an amortized cost basis.
- (c) ***Cash and cash equivalents:***
Cash and cash equivalents are readily available and measured at nominal value.
- (d) ***Marketable securities:***
Management determines the appropriate classification of securities at the time of purchase. Debt securities are classified as held-to-maturity when the Company has the positive intent and ability to hold the securities to maturity. Held-to-maturity securities are stated at amortized cost, adjusted for accretion of discounts to maturity and, where not denominated in U.S. dollars, are translated into U.S. dollars at year-end exchange rates. Accretion of discount is included in "Interest income" in the profit and loss account.

Marketable securities not classified as held-to-maturity are reported at fair value. Unrealized gains and losses on such securities are included in the profit and loss account as part of "Net gains (losses) on marketable securities". Realized gains and losses on such securities are computed based upon the cost of those securities using the specific identification method.
- (e) ***Derivatives:***
The Company uses derivative financial instruments to manage certain interest rate exposures arising from its financing activities and to manage foreign exchange exposures in its balance sheet arising from its liquidity management activities. Derivative assets and liabilities have been presented on a gross basis (see note 8).

The Company recognizes all derivatives at fair value in the balance sheet, with the corresponding gains and losses on interest rate swaps reported in the "Interest-related income & expense, net" component of "Interest expense" (see note 8), and gains and losses on foreign exchange contracts reported in "Foreign exchange gain (loss), net".

The Company applies fair value hedge accounting to interest rate swaps hedging long-term debt and documents the relationship between the hedging instruments and hedged items at the inception of the hedging transaction. The Company tests, both at hedge inception and on an ongoing basis, whether the derivatives designated as hedging transactions are highly effective in offsetting changes in fair values of the hedged items. This is done by comparing the cumulative change in the fair value of the hedging instrument (interest rate swaps) with the cumulative change in fair value of the hedged position (long-term debt). Changes in the fair value of the interest rate swaps for the period are recorded in the "Interest-related income & expense, net" component of "Interest expense" in the profit and loss account, as are changes in fair value of the hedged item attributable to the risk being hedged and consequently ineffectiveness is recognized in the profit and loss account.

(f) **Debt:**

Debt is stated at amortized cost or at amortized cost adjusted to fair value when it is the hedged item in a fair value hedge relationship.

If notes are issued at a discount or a premium, the Company uses the effective interest rate method to accrete or amortize such amounts to par over the period to maturity. Such accretion or amortization is included in "Interest expense" in the profit and loss account. Capitalized upfront costs in relation to notes issued are amortized over the period to maturity using the effective interest rate method and are shown together with the respective notes in the balance sheet.

Commercial papers issued at a premium or discount are amortized or accreted to the nominal amount (par) over the remaining period to maturity of the commercial paper, with the accretion or amortization amounts recorded in the profit and loss account in "Interest expense" or in "Interest income", respectively.

Fair value measurement:

The Company uses fair value measurement principles to record certain financial assets and liabilities on a recurring basis and to determine fair value disclosures for certain financial instruments carried at amortized cost in the financial statements. Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction. If no fair value can be readily and reliably established, fair value is approximated by deriving it from the fair value of components or of a comparable financial instrument, or by approximating fair value using valuation models and valuation techniques. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties, if available, reference to the current fair value of another instrument that is substantially the same, or discounted cash flow analysis.

In determining fair value, the Company uses observable market data for identical or similar assets (e.g. when valuing marketable securities or third-party debt), while it uses discounted cashflow models to determine the fair value of other financial assets/liabilities (e.g. derivatives or intercompany lendings/borrowings).

Financial assets and liabilities recorded at fair value on a recurring basis include interest rate and foreign exchange rate derivatives, debt that is hedged, as well as marketable securities (other than held-to-maturity securities).

Offsetting:

A financial asset and a financial liability may be offset when the entity has a legally enforceable right to set off the financial asset and financial liability and the Company has the firm intention to settle the balance on a net basis, or to settle the asset and the liability simultaneously. No offset has been made in these financial statements.

Impairment of financial assets:

Financial assets measured at amortized cost are assessed at each reporting date to determine whether there is any evidence of impairment. Impairment occurs when, after initial recognition of the asset, there is objective evidence that one or more events have occurred that will negatively impact the estimated future cash flows of the asset and these cash flows can be reliably estimated.

An impairment loss in respect of a financial asset measured at amortized 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.

Impairment losses are recognized in the profit and loss account and reflected in the balance sheet in an allowance account against the respective asset.

Accrued liabilities:

Accrued liabilities are carried at face value.

Interest:

Interest income and expense are recognized in the profit and loss account on an accruals basis for all financial instruments, using the effective interest rate method.

Taxation:

The Company is part of the fiscal unity with ABB Capital B.V. and as such is consolidated with ABB Capital B.V. for tax purposes. Both fiscal unity members are jointly and severally liable for the tax position of the fiscal unity as a whole. The head of the fiscal unity is responsible for the remittance of all corporate income tax payments to the tax authorities and the tax position of the Company will be settled with ABB Capital B.V. The corporate income tax is calculated as if the Company was separately liable for income tax.

From time to time the Company is liable to withholding taxes arising on financing activities with third parties outside the Netherlands. Such charges are included in "Income tax" in the profit and loss account.

Subsequent events:

Subsequent events occur after the balance sheet date but prior to the issuance of the financial statements. When such events provide additional information on the actual situation at the balance sheet date, they are recognized in the financial statements. However, if the events do not provide information on the situation at the balance sheet date but are relevant to users of the financial statements, the nature and estimated financial effects of the events are disclosed but not recognized in the financial statements.

3. Cash and cash equivalents

Cash represented balances with various banks and was free from liens, pledges or other restrictions.

4. Loans - related companies**Short-term loans:**

At December 31, 2018, the short-term loans (totalling USD 1.9 billion) bore interest at rates ranging from 1.44% to 4.7% and were denominated in various currencies. No short-term loans were outstanding at December 31, 2017.

Long-term loans:

At December 31, 2018, the long-term loans bore interest at rates ranging from 0.34% to 0.72% (2017: 0.34% to 2.77%) and were denominated in EUR.

Changes in long-term loans for the years ended December 31, 2018 and 2017 were:

	<u>2018</u>	<u>2017</u>
Balance at January 1,	3,193,540	1,137,020
Long-term loans granted	-	1,804,934
Repayment of long-term loans	(40,548)	-
Foreign exchange movements	(79,036)	251,586
Reclassification to short-term loans	(1,293,152)	-
Balance at December 31,	<u>1,780,804</u>	<u>3,193,540</u>

The Company has not recorded an allowance for credit losses as the Company is not significantly exposed to credit risk. The long-term loans are with related parties of the ABB Group, which itself has a A2 / A credit rating from Moody's and Standard & Poor's, respectively (see also the Keep-Well Agreement, described in Note 1).

5. Marketable securities

At December 31, 2018 and 2017, the Company had no held-to-maturity securities. Other marketable securities consisted of the following:

	<u>2018</u>			
	<u>Cost basis</u>	<u>Gross unrealized gains</u>	<u>Gross unrealized losses</u>	<u>Fair value</u>
<i>Securities lending agreement:</i>				
U.S. government obligations	79,999	-	(312)	79,687

	2018			
	Cost basis	Gross unrealized gains	Gross unrealized losses	Fair value
<i>Other marketable securities:</i>				
Money market funds	101,547	673	-	102,220
	181,546	673	(312)	181,907
	2017			
	Cost basis	Gross unrealized gains	Gross unrealized losses	Fair value
<i>Securities lending agreement:</i>				
U.S. government obligations	79,986	-	(622)	79,364

In May 2017, the Company signed a 2-year securities' lending agreement with a bank. The bank is required to return these (or replacement) securities to the Company upon maturity of the agreement. During the period of the agreement, interest on the securities will be remitted to the Company by the bank, as well as a monthly fee.

6. Shareholder's equity

At December 31, 2018 and 2017, 20,103 ordinary shares of the authorized capital of 100,000 ordinary shares (each of EUR 1 par value), were issued.

Changes in shareholder's equity for the year ended December 31, 2018 were:

	Issued capital		Share premium	Retained earnings	Other reserves	Unappropriated result	Total 2018	Total 2017
	EUR	USD	USD	USD	USD	USD	USD	USD
Balance at January 1	20	24	998	809	3	2,041	3,875	3,534
Appropriation of result	-	-	-	2,041	-	(2,041)	-	-
Dividend payment	-	-	-	(2,000)	-	-	(2,000)	(1,700)
Translation differences	-	(1)	-	-	1	-	-	-
Net result for the year	-	-	-	-	-	3,283	3,283	2,041
Balance at December 31	20	23	998	850	4	3,283	5,158	3,875

The valuation of the share capital is in accordance with Article 2:373.5 of the Dutch Civil Code. This Article requires share capital to be stated at year-end exchange rates (2018: EUR 1 = USD 1.14515; 2017: EUR 1 = USD 1.19515) and the corresponding translation adjustment to be recorded as "Other reserves".

The Board of Management proposes to distribute the 2018 net result of USD 3.283 million as follows:

	USD'000
Dividend distribution	3,250
Transfer to retained earnings	33
	3,283

7. Debt

The Company's total debt, at December 31, 2018 and 2017, amounted to USD 5,092 million and USD 5,591 million, respectively.

Short-term debt

The Company's short-term debt consisted of:

	2018		2017	
	Balance	Weighted-average nominal interest rate	Balance	Weighted-average nominal interest rate
<i>Related parties:</i>				
Short-term debt.....	1,820,434	1.72%	2,291,563	0.88%
<i>Third parties:</i>				
Short-term debt.....	171,797	-0.36%	2,880	1.74%
Current maturities of long-term debt	1,431,192	2.63%	-	-
	1,602,989		2,880	
	<u>3,423,423</u>		<u>2,294,443</u>	

Short-term debt – related companies was denominated in various currencies and bore interest at rates ranging from -0.46% to 4.27% (2017: -0.41% to 1.70%).

At December 31, 2018, short-term debt – third parties represented commercial papers, while at December 31, 2017, the balance represented a bank overdraft.

Commercial paper program

The Company has a USD 2 billion Euro Commercial Paper program for the issuance of commercial paper in a variety of currencies. At December 31, 2018, an aggregate principal of EUR 150 million was outstanding (2017: nil). Papers issued under this program are guaranteed by ABB Ltd.

Credit facility

The Company is one of the ABB Group's designated borrowers under a USD 2 billion multicurrency revolving credit facility guaranteed by ABB Ltd and maturing in May 2021. The facility is for general corporate purposes. Interest costs on drawings under the facility are LIBOR or EURIBOR (depending on the currency of the drawings) plus a margin of 0.20 percent, while commitment fees (payable on the unused portion of the facility) amount to 35 percent of the margin, which represents commitment fees of 0.07 percent per annum. Utilization fees, payable on drawings, amount to 0.075 percent per annum on drawings up to one-third of the facility, 0.15 percent per annum on drawings in excess of one-third but less than or equal to two-thirds of the facility, or 0.30 percent per annum on drawings over two-thirds of the facility. No amount was drawn at December 31, 2018 and 2017. The facility contains cross-default clauses whereby an event of default would occur if ABB Ltd or any of its subsidiaries were to default on indebtedness as defined in the facility, at or above a specified threshold.

Long-term debt

The Company's long-term debt consisted of:

	2018			2017		
	Balance	Weighted-average nominal interest rate	Effective rate	Balance	Weighted-average nominal interest rate	Effective rate
<i>Related parties:</i>						
Long-term debt.....	-	-	-	79,989	1.27%	1.27%
<i>Third parties:</i>						
Fixed rate.....	1,431,192	2.63%	2.64%	1,492,646	2.63%	2.64%
Floating rate.....	1,668,592	0.69%	0.09%	1,723,447	0.69%	0.08%
	3,099,784			3,216,093		
Current portion of long-term debt	(1,431,192)	2.63%	2.64%	-		
	<u>1,668,592</u>			<u>3,216,093</u>		
	<u>1,668,592</u>			<u>3,296,082</u>		

At December 31, 2017, long-term debt – related companies was denominated in USD and bore interest of 1.27%.

At December 31, 2018 and 2017, long-term debt – third parties represented three outstanding EUR notes: (i) EUR 1,250 million, due on March 26, 2019, paying interest annually in arrears at a fixed rate of 2.625 percent per annum, (ii) EUR 700 million, due 2023, paying interest annually in arrears at a fixed rate of 0.625 percent per annum, and (iii) EUR 750 million, due 2024, paying interest annually in arrears at a fixed rate of 0.750 percent per annum.

The notes are guaranteed by ABB Ltd, whereby ABB Ltd guarantees to the noteholders the punctual payment of principal and interest.

In addition, these notes contain cross-default clauses which would allow the noteholders to demand repayment if the Company or certain other members of the ABB Group were to default on any borrowing at or above a specified threshold. The notes constitute unsecured obligations of the Company and rank *pari passu* with other debt obligations of the ABB Group.

In 2017, the Company entered into interest rate swaps for (i) an aggregate notional amount of EUR 700 million to hedge its obligations on the notes due 2023 and (ii) an aggregate notional amount of EUR 750 million to hedge its obligations on the notes due 2024. After considering the impact of the swaps, both note issuances are shown as floating rate debt in the table of long-term debt above.

8. Derivatives - related companies

The Company enters into interest rate and foreign exchange derivatives with a related company to manage its exposures. The fair values of outstanding derivatives at December 31, were as follows:

	2018		2017	
	Fair Values		Fair Values	
	Asset	Liability	Asset	Liability
<i>Non-current:</i>				
Interest rate derivatives	13,125	-	-	(3,597)
<i>Current:</i>				
Foreign exchange contracts	11	(542)	-	-
	13,136	(542)	-	(3,597)

In 2017, the Company entered into interest rate swaps, with a gross notional amount of EUR 1,450 million and an initial negative fair value of USD 1.9 million, to manage certain interest rate exposures arising from its financing activities. The initial fair value has been recorded in "Interest expense". These swaps were designated as fair value hedges and the subsequent changes in fair value of these swaps, as well as the changes in the fair value of the risk component of the underlying debt being hedged, were recorded as offsetting gains and losses in "Interest expense". Consequently, in 2018 and 2017, hedge ineffectiveness in the profit and loss account was USD 0.5 million and USD 0.2 million, respectively:

	2018	2017
Gains (losses) recognized in the "Interest-related income & expense, net" component of "Interest expense":		
on derivatives designated as fair value hedges	16,721	(1,631)
on hedged items	(16,249)	1,856
Hedge ineffectiveness	472	225
Initial fair value	-	(1,966)
Interest-related income & expense, net (see note 13)	472	(1,741)

9. Financial risks, repayment terms and fair values

Financial risks are considered to be interest, credit and foreign exchange risk. The Company's financial policies contain strict rules for the management of financial risks arising from its financing, investing and liquidity management activities. Real time and end-of-day monitoring of

market risk is performed by a separate risk control department to ensure that the policies are adhered to at all times.

Foreign exchange and interest rate risk management:

To minimize the foreign exchange and interest rate risk from its financing, investing and liquidity management activities, the Company generally invests in the same currency and on similar terms as its funding. However, where this is not possible, the Company uses foreign exchange derivative transactions to eliminate its foreign exchange risks and mismatches between the maturities of the liability and the asset.

Funds raised by the Company from issuances under the ABB Group's Euro Medium Term Note program are onlent to other ABB Group companies. The Company uses derivatives in order to better match underlying assets and liabilities. In 2017, the Company entered into interest rate swaps to hedge its interest rate obligations on the EUR 700 million notes maturing in 2023 and the EUR 750 million notes maturing in 2024.

Credit risk management:

The Company maintains tight controls over credit risk through strict credit review and credit limit setting procedures for each counterparty, as well as the daily monitoring of credit risks.

Repayment terms:

At December 31, 2018 and 2017, the analysis of repayment terms of financial assets and liabilities were as follows (in millions of USD):

2018	<1 year	1-5 years	>5 years	Total carrying value	Total fair value
<i>Non-current assets</i>					
Loans – related companies.....	-	1,781	-	1,781	1,826
<i>Current assets</i>					
Loans – related companies.....	1,929	-	-	1,929	1,939
Short-term deposits with banks.....	1,149	-	-	1,149	1,149
Marketable securities.....	182	-	-	182	182
<i>Non-current liabilities</i>					
Debt – third parties.....	-	807	862	1,669	1,679
<i>Current liabilities</i>					
Debt – related companies.....	1,820	-	-	1,820	1,820
Debt – third parties.....	1,603	-	-	1,603	1,612
2017					
<i>Non-current assets</i>					
Loans – related companies.....	-	3,194	-	3,194	3,300
Marketable securities.....	-	79	-	79	79
<i>Current assets</i>					
Short-term deposits with banks.....	2,278	-	-	2,278	2,278
<i>Non-current liabilities</i>					
Debt – related companies.....	-	80	-	80	79
Debt – third parties.....	-	1,493	1,723	3,216	3,296
<i>Current liabilities</i>					
Debt – related companies.....	2,292	-	-	2,292	2,291
Debt – third parties.....	3	-	-	3	3

The fair values of financial assets and liabilities, other than those listed above, reflected the carrying value of such items, given the short-term nature of those instruments.

Nominal interest rates:

The Company borrows and invests in various currencies on an arm's length basis.

At December 31, 2018 and 2017, the nominal interest rates (excluding the impact of the interest rate swaps) of interest-bearing financial assets and liabilities were as follows (in millions of USD):

2018	<0% ⁽¹⁾	0-1%	>1-2%	>2-3%	>3-4%	>4%	Total
<i>Non-current assets</i>							
Loans – related companies.....	-	1,781	-	-	-	-	1,781
<i>Current assets</i>							
Loans – related companies.....	-	-	89	1,239	424	177	1,929
Short-term deposits with banks.....	421	33	-	694	1	-	1,149
Marketable securities.....	-	-	80	-	-	-	80
<i>Non-current liabilities</i>							
Debt – third parties.....	-	1,669	-	-	-	-	1,669
<i>Current liabilities</i>							
Debt – related companies.....	469	107	80	987	-	177	1,820
Debt – third parties.....	172	-	-	1,431	-	-	1,603
2017							
<i>Non-current assets</i>							
Loans – related companies.....	-	1,901	-	1,293	-	-	3,194
Marketable securities.....	-	-	79	-	-	-	79
<i>Current assets</i>							
Short-term deposits with banks.....	400	585	1,293	-	-	-	2,278
<i>Non-current liabilities</i>							
Debt – related companies.....	-	-	80	-	-	-	80
Debt – third parties.....	-	1,723	-	1,493	-	-	3,216
<i>Current liabilities</i>							
Debt – related companies.....	452	560	1,280	-	-	-	2,292
Debt – third parties.....	-	-	3	-	-	-	3

⁽¹⁾ interest rates <0% represented negative interest rates in line with market conditions.

10. Interest receivable

	2018	2017
Interest receivable:		
Related companies.....	36,445	38,584
Third parties.....	315	1,353
	<u>36,760</u>	<u>39,937</u>

11. Interest payable

	2018	2017
Interest payable:		
Related companies.....	3,490	1,776
Third parties.....	36,193	37,775
	<u>39,683</u>	<u>39,551</u>

12. Income from service fees

Income from service fees represents revenues from accounting and treasury services provided to related companies.

13. Interest income and expense

	2018	2017
Interest income:		
Related companies.....	62,231	44,336
Third parties.....	20,001	12,446
	<u>82,232</u>	<u>56,782</u>
Interest expense:		
Interest expense – related companies.....	(23,639)	(10,830)

	<u>2018</u>	<u>2017</u>
Interest expense – third parties	(41,596)	(43,031)
Amortization of fees on note issuance	(1,489)	(1,344)
Interest-related income & expense, net (see note 8).....	472	(1,741)
	<u>(66,252)</u>	<u>(56,946)</u>

14. Net gains (losses) on marketable securities

	<u>2018</u>	<u>2017</u>
Net gains (losses) on marketable securities consisted of:		
Money market funds.....	1,264	-
U.S. government obligations	310	(603)
	<u>1,574</u>	<u>(603)</u>

The net gains (losses) on marketable securities in 2018 and 2017 consisted of realized and unrealized market value effects.

15. Operating expenses

	<u>2018</u>	<u>2017</u>
Personnel expenses.....	1,290	1,130
Other – related parties.....	530	529
Other – third parties.....	94	264
	<u>1,914</u>	<u>1,923</u>

The remuneration of the auditors, as required by section 382, sub a, Book 2 of the Netherlands Civil Code, amounted to USD 10,000 in 2018 (2017: USD 10,000). This related entirely to audit services performed, in respect of the financial statements, by KPMG Accountants N.V. (in 2018) and Ernst & Young Accountants LLP (in 2017). No other services were provided by either KPMG Accountants N.V. or Ernst & Young Accountants LLP to the Company in 2018 and 2017.

16. Employee data

At December 31, 2018, the Company had 12 employees (2017: 10), all employed in the Netherlands.

Personnel expenses (see note 15) consisted of the following:

	<u>2018</u>	<u>2017</u>
Salaries	973	878
Social security charges	181	117
Pension expense	88	85
Other personnel expenses	48	50
	<u>1,290</u>	<u>1,130</u>

The Board of Management remuneration for 2018 and 2017, included in personnel expenses above, amounted to USD 208 thousand (2017: USD 199 thousand).

17. Income tax

The income tax is based on Dutch income tax regulations and also includes non-recoverable withholding taxes. Dutch current income taxes are provided based on income earned during the year.

<u>Tax Reconciliation</u>	<u>2018</u>	<u>2017</u>
Result before taxes	5,056	2,721
Dutch tax rate	25%	25%
Income tax applying Dutch tax rate	1,264	680
Items taxed at rates other than the Dutch tax rate	509	-
Income tax	1,773	680
Overall effective tax rate	35.1%	25.0%

At December 31, 2018, corporate income taxes due of USD 5.3 million (2017: USD 4.2 million), representing a payable to ABB Capital B.V., were included in "Accrued liabilities" in the balance sheet (see note 2 for a description of the fiscal unity with ABB Capital B.V.).

18. Transactions with related parties

Related parties include the Company's shareholder, ABB group companies and the Company's Board of Management. All transactions with related parties are made on an arm's length basis and have been reflected in these financial statements.

19. Subsequent events

In 2019, additional commercial paper with an aggregate principal of EUR 300 million has been issued.

Rotterdam, March 25, 2019

Board of Management

G. Stewart

U. Arnold

M. Wolodzko

S. Husi

INDEPENDENT AUDITOR'S REPORT OF ABB FINANCE B.V.

To: the General Meeting of Shareholders and the Board of Management of ABB Finance B.V.

Report on the audit of the financial statements 2018 included in the annual report

Our opinion

In our opinion the accompanying financial statements give a true and fair view of the financial position of ABB Finance B.V. as at 31 December 2018 and of its result for 2018 then ended, in accordance with Part 9 of Book 2 of the Dutch Civil Code.

What we have audited

We have audited the financial statements 2018 of ABB Finance B.V. (the "**Company**") based in Rotterdam, the Netherlands. The financial statements comprise:

- 1 the balance sheet as 31 December 2018;
- 2 the profit and loss account for 2018; and
- 3 the notes comprising a summary of the significant accounting policies and other explanatory information.

Basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. Our responsibilities under those standards are further described in the 'Our responsibilities for the audit of the financial statements' section of our report.

We are independent of ABB Finance B.V. in accordance with the 'Wet toezicht accountants-organisaties' (Wta, Audit firms supervision act), the 'Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten' (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA, Dutch Code of Ethics).

We believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Audit approach

Summary

Materiality

- Materiality of USD 40 million
- Approximately 1% of total assets

Key audit matters

- US GAAP to Dutch GAAP conversion and compliance with Dutch accounting standards
- Mitigation of exposure to third party debt by guarantees provided by ABB Ltd.

Opinion

- Unqualified

Auditor transition

The year 2018 was the first year we have audited the financial statements of ABB Finance B.V. This initial audit engagement involves additional considerations compared to recurring audits. For initial audit

engagements, we gain appropriate knowledge about the Company, its business, control environment and its application of accounting principles in order to perform our initial audit risk assessment and planning of audit activities.

A transition plan, including independence clearance, was prepared prior to the start of the audit. We gained an understanding of ABB Finance B.V. and its business, including its control environment and accounting policies, as we were involved early in the year. We have been in contact with the predecessor auditor Ernst & Young Accountants LLP and have performed a review of their audit files. During the year we had regular meetings with management and assessed key accounting and key audit matters at an early stage.

Materiality

Based on our professional judgement we determined the materiality for the financial statements as a whole at USD 40 million. The materiality is determined with reference to total assets (approximately 1%). We consider total assets as the most appropriate benchmark because the Company's third-party debt is utilized to fund the ABB group and this funding represents a significant part of the total assets in the balance sheet. We have also taken into account misstatements and/or possible misstatements that in our opinion are material for the users of the financial statements for qualitative reasons, in particular those impacting shareholder's equity and net income as these accounts are relatively low in comparison with total assets.

Scope of the audit

To achieve the most efficient audit approach, given the common IT, back office and risk control systems and activities of the ABB Group Treasury function, we requested KPMG Switzerland to perform the majority of the audit procedures on the Company's financial statements.

We have:

- performed audit procedures in respect of the conversion of the US Generally Accepted Accounting Principles (US GAAP) financial statements prepared for group reporting purposes to Dutch Generally Accepted Accounting Principles (Dutch GAAP) for statutory reporting; and
- performed audit procedures on the financial statements in order to assess whether they have been prepared in accordance with Dutch law.

We provided instructions to KPMG Switzerland, covering the significant audit areas, including the relevant risks of material misstatement identified by us, and set out the information required to be reported back to us. Based on our assessment of the effectiveness of internal control, including general IT controls, we decided to adopt a substantive audit approach. Telephone conferences were held with KPMG Switzerland to discuss the planning, audit approach, findings and observations reported to us. We also performed a review of the audit file prepared by KPMG Switzerland.

By performing the procedures mentioned above we have been able to obtain sufficient and appropriate audit evidence about the Company's financial information to provide an opinion about the financial statements.

Our key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements. The key audit matters are not a comprehensive reflection of all matters discussed.

These matters were addressed in the context of our audit of the financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

US GAAP to Dutch GAAP conversion and compliance with Dutch accounting standards

Description

The Company's primary accounting records are maintained based on US GAAP which is used for ABB group reporting purposes. However, the statutory financial statements of the Company, filed in the Netherlands, have to be prepared in accordance with Part 9 of Book 2 of the Dutch Civil Code (Dutch GAAP). Therefore management prepared an analysis to convert the US GAAP financial statements to

Dutch GAAP financial statements. As Dutch GAAP is not embedded in the primary accounting records, this conversion, together with the application of Dutch law in preparing the financial statements, was an area of focus during our audit.

Our response

We evaluated the completeness and accuracy of the management's conversion of the US GAAP financial statements to the Dutch GAAP financial statements by assessing the different GAAP accounting treatment for the financial statement captions. Furthermore, we held regular meetings with management and with KPMG Switzerland and reviewed their audit files, in order to identify events or transactions that occurred, that could result in a materially different accounting treatment under Dutch GAAP compared to US GAAP. We recalculated the adjustments and reconciled them to underlying evidence and assessed the financial statements for compliance with Dutch law.

Our observation

Based on our procedures performed, we consider the conversion from the US GAAP to the Dutch GAAP financial statements, which comprise of a limited number of adjustments, including the disclosure notes, to be appropriate.

Mitigation of exposure to third party debt by guarantees provided by ABB Ltd.

Description

The Company issues debt instruments to investors under the EMTN programme and Commercial Paper programme and utilises the proceeds to fund the legal entities in the ABB group. As the Company's shareholder's equity is low in relation to the size of third party debt, the exposure to the issued debt is guaranteed by the Company's ultimate parent, ABB Ltd. (Ultimate parent). Furthermore, under the terms of the EMTN programme and the Revolving Credit Facility (undrawn as at 31 December 2018), a default above a defined threshold by certain subsidiaries of the ABB group, as defined in these debt agreements, could trigger an event that would materially impact the Company's equity if the guarantees provided by the Ultimate parent would not mitigate the risk to the Company in full.

We therefore consider the mitigation of the exposure to third party debt by the guarantees provided by the Ultimate parent and the ability of the Ultimate parent to fulfil its obligations to ABB Finance B.V. to be a key audit matter.

Our response

In order to satisfy ourselves as to the extent to which the guarantees provided by the Ultimate parent mitigate the exposure to the third-party debt our audit procedures included:

- Assessing the design and effectiveness of the Company's risk management controls;
- Obtaining an understanding of the debt agreements, including covenants and anything that could trigger a default event;
- Inspecting management's assessment of the group's compliance with the debt agreements;
- Assessing whether ABB Ltd. is able to meet its obligations toward the Company thereby allowing the third-party debt to be serviced by the Company in accordance with the contractual terms;
- Assessing whether the guarantees given by ABB Ltd. (as well as the Keep-well agreement) provide sufficient mitigation to ABB Finance B.V. in the event of a default event or penalty and are accurately disclosed in the financial statements;
- Assessing ABB Ltd.'s credit ratings; and
- Assessing the adequacy of the disclosure of the guarantees in note 1 of the financial statements.

Our observation

The results of our procedures performed were satisfactory and we consider the disclosures in note 1 to the financial statements to be adequate.

Report on the other information included in the annual report

In addition to the financial statements and our auditor's report thereon, the annual report contains other information that consists of:

- the Report of the Board of Management; and
- the other information pursuant to Part 9 of Book 2 of the Dutch Civil Code.

Based on the following procedures performed, we conclude that the other information:

- is consistent with the financial statements and does not contain material misstatements; and
- contains the information as required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements.

By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the financial statements.

The Board of Management is responsible for the preparation of the other information, including the Report of the Board of Management in accordance with Part 9 of Book 2 of the Dutch Civil Code and the other information pursuant to Part 9 of Book 2 of the Dutch Civil Code.

Report on other legal and regulatory requirements

Engagement

We were engaged by the Board of Management as auditor of ABB Finance B.V. on 2 July 2018, as of the audit for the year 2018.

Description of responsibilities regarding the financial statements

Responsibilities of the Board of Management for the financial statements

The Board of Management is responsible for the preparation and fair presentation of the financial statements in accordance with Part 9 of Book 2 of the Dutch Civil Code. Furthermore, the Board of Management is responsible for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, the Board of Management is responsible for assessing the Company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, the Board of Management should prepare the financial statements using the going concern basis of accounting unless the Board of Management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so. The Board of Management should disclose events and circumstances that may cast significant doubt on the Company's ability to continue as a going concern in the financial statements.

Our responsibilities for the audit of the financial statements

Our objective is to plan and perform the audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not detect all material errors and fraud during our audit.

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. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

A further description of our responsibilities for the audit of the financial statements is located at the website of de 'Koninklijke Nederlandse Beroepsorganisatie van Accountants' (NBA, Royal Netherlands Institute of Chartered Accountants) at: http://www.nba.nl/ENG_beursgenoteerd_01. This description forms part of our independent auditor's report.

Rotterdam, 25 March 2019

KPMG Accountants N.V.

C.E. Lagerwaard-Begemann RA

DESCRIPTION OF ABB FINANCE (USA) INC.

Introduction

ABB Finance (USA) Inc. ("**ABB USA**") was incorporated with limited liability under the General Corporation Law of the State of Delaware on April 12, 2012. ABB USA has its principal corporate offices located at 305 Gregson Drive, Cary, North Carolina, 27511, and its telephone number is +1 (901) 252-5843. ABB USA is registered under registration number 5138243. Its By-Laws are dated April 11, 2012.

ABB USA is an indirect wholly-owned subsidiary of ABB Ltd. According to Article 3 of its certificate of incorporation, ABB USA's main function is the provision of financing to the ABB Group, primarily in the United States. ABB Ltd has provided a guarantee in connection with the Instruments to be issued by ABB USA under this Programme, which shall be the sole credit support in connection with the Instruments. See "*Relationship with ABB Ltd*".

ABB USA has no subsidiaries and has no assets, operations, revenues or cash flows other than those related to the issuance, administration and repayment of the Instruments offered from time to time through this Programme and any other securities issued by the ABB USA that are guaranteed by ABB Ltd.

ABB USA's fiscal year is January 1 to December 31.

ABB USA does not hold any of its own common stock.

At December 31, 2018 and 2017, the authorised capital of ABB USA amounted to common stock of 1,000 shares (each with a par value of \$0.01), of which 1,000 shares had been issued and fully paid.

<u>Board of Directors</u>	<u>Position</u>	<u>Principal activities performed outside ABB USA</u>
Daniel Hagmann	Director and CEO	Treasurer Americas Region
Urs Arnold	Director	ABB Group Treasurer
Véronique Dersy	Director	Head of ABB Group Capital Markets
Ryan Kane	Director	Director of Financial Planning & Analysis for the United States

On March 22, 2019, it was announced that effective April 1, 2019, Michael Gray is appointed Country Chief Financial Officer (CFO) for the United States (US). Michael Gray will be appointed on or after April 3, 2019 as a member of the Board of Directors of ABB USA, replacing Ryan Kane who was until March 31, 2019, CFO ad interim for the US in addition to his role as Director of Financial Planning & Analysis for the US.

The business address of Urs Arnold and Véronique Dersy is at ABB Asea Brown Boveri Ltd, Affolternstrasse 44, CH 8050 Zurich, Switzerland. The business address of Daniel Hagmann is at ABB Treasury Center (USA), Inc., 187 Danbury Road, Wilton, CT 06897, United States. The business address of Ryan Kane is at ABB Inc., 305 Gregson Drive, Cary, NC 27511, United States.

There are no conflicts of interests or potential conflicts of interests between the duties to ABB USA of each of the members of the Board of Directors listed above and their private interests or other duties.

Recent Developments

The business of ABB USA from December 31, 2018 up to the date of this Information Memorandum continued in substantially the same form as in 2018, providing financing services to the ABB Group. Between December 31, 2018 and the date of this Information Memorandum, ABB USA did not issue any securities.

Notices of Meetings of Shareholders

Notices of meetings shall be given by means of letter to the Shareholders not less than ten days and not more than sixty days before the day on which the meeting is held.

Restrictions on the Transfer of Shares

Section 2 of Article V of the By-Laws of ABB USA regulates the restrictions on the transferability of ABB USA shares.

Dividends

From the date of incorporation to the date of this Information Memorandum, no dividends have been paid to the shareholder of ABB USA.

The following pages 116 to 126 are extracted from ABB Finance (USA) Inc.'s Financial Statements as of and for the year ended December 31, 2018 and the Independent Auditors' Report thereon.

ABB FINANCE (USA) Inc.
BALANCE SHEETS

(Dollars in Thousands, Except Per Share Data)

	December 31	
	2018	2017
Assets		
Current assets:		
Accounts receivable – affiliated companies	7,003	2,008
Accrued interest receivable – affiliated companies	27,609	12,964
Loans – affiliated companies	27,465	24,769
Total current assets	<u>62,077</u>	<u>39,741</u>
Non-current assets:		
Loans – affiliated companies	3,431,165	1,937,213
Derivative assets – affiliated companies	2,167	19,374
Deferred taxes	420	441
Total non-current assets	<u>3,433,752</u>	<u>1,957,028</u>
Total assets	<u>\$ 3,495,829</u>	<u>\$ 1,996,769</u>
Liabilities and stockholder's equity		
Current liabilities:		
Accounts payable – affiliated companies	\$ 7,003	\$ 2,008
Accrued interest payable – affiliated companies	4,273	2,427
Accrued interest payable – third parties	22,519	9,930
Total current liabilities	<u>33,795</u>	<u>14,365</u>
Non-current liabilities:		
Debt – third parties	3,458,406	1,978,858
Total non-current liabilities	<u>3,458,406</u>	<u>1,978,858</u>
Stockholder's equity:		
Common stock, par value \$0.01 per share; 1,000 shares authorized, issued, and outstanding	–	–
Additional paid-in capital	2,719	2,719
Retained earnings	909	827
Total stockholder's equity	<u>3,628</u>	<u>3,546</u>
Total liabilities and stockholder's equity	<u>\$ 3,495,829</u>	<u>\$ 1,996,769</u>

See accompanying notes

ABB Finance (USA) Inc.
Statements of Income

(Dollars in Thousands)

	Year Ended December 31	
	2018	2017
Revenues		
Interest income – affiliated companies.....	\$ 106,893	\$ 60,606
Total revenues	106,893	60,606
Expenses		
Interest expense – third parties.....	105,300	59,268
Amortization of fees on bond issuance	1,712	821
Other income	(222)	(818)
Total expenses, net	106,790	59,271
Income before taxes	103	1,335
Provision for income taxes	21	761
Net income	\$ 82	\$ 574

See accompanying notes

ABB Finance (USA) Inc.
Statements of Changes in Stockholder's Equity

(Dollars in Thousands)

	<u>Common Stock</u>	<u>Additional Paid-in Capital</u>	<u>Retained Earnings</u>	<u>Total</u>
Balance at December 31, 2016.....	\$	\$ 2,538	\$ 253	\$ 2,791
Contribution from Parent.....	-	181	-	181
Net income.....	-	-	574	574
Balance at December 31, 2017.....	-	2,719	827	3,546
Net income.....	-	-	82	82
Balance at December 31, 2018.....	<u>\$ -</u>	<u>\$ 2,719</u>	<u>\$ 909</u>	<u>\$ 3,628</u>

See accompanying notes

ABB Finance (USA) Inc.
Statements of Cash Flows

(Dollars in Thousands)

	Year Ended December 31	
	2018	2017
Operating activities		
Net income.....	\$ 82	\$ 574
Adjustments to reconcile net income to net cash provided by operating activities:		
Non-cash charges in lieu of income taxes	0	181
Non-cash charges for amortization of deferred costs	1,712	821
Non-cash charges for amortization of discount on debt	3,391	3,429
Changes in fair value	(222)	(818)
Net (increase) decrease in accounts receivable – affiliated companies ...	(4,995)	497
Net (increase) decrease in interest receivable – affiliated companies.....	(14,645)	553
Net increase (decrease) in accounts payable – affiliated companies	4,995	(497)
Net increase in interest payable – affiliated companies.....	1,846	796
Increase (decrease) in accrued interest expense – third party.....	12,588	(1,174)
Deferred taxes.....	21	580
Net cash provided by operating activities	4,773	4,942
Investing activities		
Net (increase) decrease in short-term loans – affiliated companies	(2,695)	308
Loans issued – affiliated companies	(1,493,952)	494,750
Net cash (used in) provided by investing activities	(1,496,647)	495,058
Financing activities		
Proceeds from issuance of long-term debt net of discount and fees – third party.....	1,491,874	-
Repayment of long-term debt – third party.....	-	(500,000)
Net cash provided by (used in) financing activities	1,491,874	(500,000)
Change in cash and cash equivalents.....	\$ 0	\$ 0
Supplemental disclosures of cash flow information		
Interest paid.....	\$ 87,475	\$ 55,044

See accompanying notes

ABB FINANCE (USA) Inc.
NOTES TO FINANCIAL STATEMENTS
December 31, 2018

1. Organization and Operations

ABB Finance (USA) Inc. (the Company), is a wholly-owned subsidiary of ABB Holdings Inc. (the Parent) and a member of the worldwide group of related companies of ABB Ltd, Zurich, Switzerland (the ABB Group). The Company acts as a financial intermediary for the ABB Group, primarily in the United States (U.S.).

In 2012, the Company and ABB Ltd (the Guarantor) entered into a guarantee agreement (the Guarantee) whereby the Guarantor irrevocably and unconditionally guarantees to the holders of notes or debt issued by the Company, the due and punctual payment of principal, premium (if any) and interest from time to time payable by the Company in respect of such debt as and when the same shall become due.

As a result of the above noted credit support instrument (the Guarantee), interest rates on debt instruments issued by the Company are likely to be lower. Therefore, effective May 2012, the Company entered into a Debt Compensation Agreement (the Agreement) with ABB Ltd. The Agreement specifies that as long as the debt remains outstanding, the Company shall pay a fee to ABB Ltd as compensation for the benefit arising to the Company from the lower interest rates and reduced interest expense in respect to each Debt Instrument. For the year ended December 31, 2018, the Company's expense under the Agreement was \$22.9 million (2017: \$8.7 million), reported in "Other" in the Statements of Income. As of December 31, 2018, \$7.0 million (2017: \$2.0 million) of this expense was due to the Guarantor and reported in "Accounts payable – affiliated companies." In 2018, the total fee of \$22.9 million (2017: \$8.7 million) was re-charged to another ABB Group company and the corresponding income is reported in "Other" in the Statements of Income.

In 2018, the Company was added as a designated issuer under the ABB Group's Euro Medium Term Note program that allows the issuance of up to the equivalent of USD 8 billion in certain debt instruments. The terms of the program do not obligate any third party to extend credit to the Company and the terms and possibility of issuing any debt under the program are determined with respect to, and as of the date of issuance of, each debt instrument. No notes were issued under the program in 2018.

The Company has evaluated subsequent events up to the close of business on March 25, 2019, the date of issuance of these financial statements.

2. Summary of Significant Accounting Policies

The following is a summary of significant accounting policies followed in the preparation of these financial statements:

Basis of Presentation

The financial statements are prepared in accordance with U.S. generally accepted accounting principles (U.S. GAAP) and are presented in U.S. dollars (\$) unless otherwise stated.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make assumptions and estimates that directly affect the amounts reported in the financial statements and notes. The accounting estimates that require the Company's judgment involves discount rates used to determine the fair value of loans.

The actual results and outcomes may differ from the Company's estimates and assumptions.

Fair Value Measures

The Company uses fair value measurement principles to record certain financial assets and liabilities on a recurring basis and to determine the fair value disclosures for certain financial instruments carried at amortized cost in the financial statements.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In determining fair value, the Company applies various valuation techniques, including the market approach (using observable market data for identical or similar assets and liabilities) and the income approach (discounted cash flow models). Inputs used to determine the fair value of assets and liabilities are defined by a three-level hierarchy, depending on the reliability of those inputs. The Company categorized its financial assets and liabilities measured at fair value within this hierarchy, based on whether the inputs to the valuation technique are observable or unobservable. An observable input is based on market data obtained from independent sources, while the unobservable input reflects the Company's assumptions about market data.

The levels of the fair value hierarchy are as follows:

- Level 1:* Valuation inputs consist of unadjusted quoted prices in an active market for identical assets or liabilities (observable quoted prices).
- Level 2:* Valuation inputs consist of other observable inputs (other than Level 1 inputs), such as actively quoted prices for similar assets, quoted prices in inactive markets, interest rate yield curves, credit spreads, or inputs derived from other observable data by interpolation, correlation, regression or other means. The adjustments applied to quoted prices or the inputs used in valuation models may be both observable and unobservable. In these cases, the fair value measurement is classified as Level 2 unless the unobservable portion of the adjustment or the unobservable input to the valuation model is significant, in which case the fair value measurement will be classified as Level 3.
- Level 3:* Valuation inputs are based on the Company's own assumptions of relevant market data.

Whenever quoted prices involve bid-ask spreads, the Company ordinarily determines fair values based on mid-market quotes.

When determining fair values based on quoted prices in an active market, the Company considers if the level of transaction activity for the financial instrument has significantly decreased or would not be considered orderly. In such cases, the resulting changes in valuation techniques would be disclosed. If the market is considered disorderly or if quoted prices are not available, the Company is required to use another valuation technique, such as an income approach.

Disclosures about the Company's fair value measurement of assets and liabilities are included in Note 6.

Debt

Notes issued are stated at amortized cost or at amortized cost adjusted to fair value when they are the hedged item in a fair value hedge relationship. If notes are issued at a discount or a premium, the Company uses the effective interest rate method to accrete or amortize such notes to par over the period to maturity. Such accretion or amortization is included in "Interest expense – third parties" in the Statements of Income. Debt issuance costs in relation to notes issued are amortized over the period to maturity using the effective interest rate method and are shown together with the respective notes in the balance sheet.

Concentrations of Credit Risk

The majority of the Company's assets represent loans receivable from member companies of the ABB Group located in the United States.

Derivative Financial Instruments

The Company uses derivative financial instruments to manage certain interest rate exposures arising from its financing activities.

The Company recognizes all derivatives at fair value in the balance sheet, with the corresponding gains and losses reported in "Other" in the Statements of Income. If a derivative is designated as a fair value hedge, changes in the fair value of the derivative will be offset against the change in fair value of the hedged item attributable to the risk being hedged and consequently ineffectiveness is recognized immediately.

Income Taxes

The Parent files a consolidated U.S. federal income tax return in which the results of the Company are included. Separate state and local income tax returns are filed by the separate legal entities except in jurisdictions which require filing on a combined basis or permit filing on a consolidated basis. Current taxes provided in the Company's financial statements are paid by the Parent, not the Company, and are therefore reflected in the accompanying financial statements as a contribution to capital by the Parent. In the case of a current tax benefit, taxes are reflected as a return of capital from retained earnings.

The Company uses the asset and liability method to account for deferred taxes. Under this method, deferred tax assets and liabilities are determined based on temporary differences between the financial reporting and the tax bases of assets and liabilities. Deferred tax assets and liabilities are measured using enacted tax rates and laws that are expected to be in effect when the differences are expected to reverse. For financial statement purposes, the Company recognizes a deferred tax asset when it determines that it is more likely than not that the deduction will be sustained based upon the deduction's technical merit. A valuation allowance is recognized to reduce deferred tax assets to the amount that is more likely than not to be realized. The Company has no accruals for uncertain tax positions as of December 31, 2018 and 2017. The Company accrues interest on unrecognized tax benefits as interest expense. Penalties, if incurred, are recognized as a component of income tax expense.

3. Loans – Affiliated Companies

As of December 31, "Current loans – affiliated companies" consisted of the following:

	<u>2018</u>	<u>2017</u>
	<i>(Dollars in Thousands)</i>	
Cash pool arrangement with affiliated companies	<u>27,465</u>	<u>24,769</u>

The Company's bank account is part of a cash-pooling arrangement managed by a related company. Consequently, the balances have been included in "Loans - Affiliated Companies"

As of December 31, "Long-term loans – affiliated companies" consisted of the following:

	<u>2018</u>	<u>2017</u>
	<i>(Dollars in Thousands)</i>	
\$299,208 2.9398% notes due 2020	\$ 299,208	\$ -
\$1,022,522 floating rate notes due 2022	1,022,522	1,022,522
\$194,766 3.23% notes due 2022	194,766	194,766
\$448,119 3.47312% notes due 2023	448,119	-
\$746,625 3.8624% notes due 2028	746,625	-
\$719,925 4.697% notes due 2042	719,925	719,925
Total	<u>\$ 3,431,165</u>	<u>\$ 1,937,213</u>

At December 31, 2018 and 2017, the weighted average interest rate of the \$1,022,522 floating rate notes due 2022 was 3.08% and 1.89%, respectively.

4. Debt – Third Parties

The Company utilizes derivative instruments to modify characteristics of its long-term debt. In particular, the Company uses interest rate swaps to effectively convert certain fixed-rate long-term

debt into floating rate obligations. The carrying value of debt, designated as being hedged by fair value hedges, is adjusted for changes in the fair value of the risk component of the debt being hedged.

The following table summarizes the Company's long-term debt considering the effect of interest rate swaps. Consequently, a fixed-rate debt subject to a fixed-to-floating interest rate swap is included as a floating rate debt in the table below:

	2018			2017		
	Balance <i>(Dollars in Thousands)</i>	Weighted- average nominal interest rate	Effective rate	Balance <i>(Dollars in Thousands)</i>	Weighted- average nominal interest rate	Effective rate
Floating	\$ 1,043,185	2.88%	3.02%	\$ 1,058,427	2.88%	1.81%
Fixed.....	2,415,221	3.71%	3.79%	920,431	4.06%	4.26%
Total.....	\$ 3,458,406			\$ 1,978,858		

At December 31, 2018, the principal amounts of long-term debt repayable at maturity were as follows (dollars in thousands):

Due in 2019	\$ -
Due in 2020	300,000
Due in 2021	-
Due in 2022	1,250,000
Due in 2023	450,000
Thereafter	1,500,000
Total.....	\$ 3,500,000

Third party long-term debt as of December 31 consisted of the following:

	2018	2017
	<i>(Dollars in Thousands)</i>	
\$300,000 2.8% notes due 2020.....	\$ 299,240	\$ -
\$1,250,000 2.875% notes due 2022.....	1,241,886	1,255,942
\$450,000 3.375% notes due 2023.....	447,858	-
\$750,000 3.8% notes due 2028.....	745,890	-
\$750,000 4.375% notes due 2042.....	723,532	722,916
Total.....	\$ 3,458,406	\$ 1,978,858

In April 2018, the Company issued the following notes (i) \$300 million, due 2020, paying interest semi-annually in arrears at a fixed annual rate of 2.8%, (ii) \$450 million, due 2023, paying interest semi-annually in arrears at a fixed annual rate of 3.375%, and (iii) \$750 million, due 2028, paying interest semi-annually in arrears at a fixed annual rate of 3.8%. The Company recorded net proceeds (after fees) of \$1,492 million.

The \$1,250 million of 2.875% USD notes, due 2022, pay interest semi-annually in arrears at a fixed annual rate of 2.875 percent, and the \$750 million of 4.375% USD notes, due 2042, pay interest semi-annually in arrears, at a fixed annual rate of 4.375 percent. The Company entered into interest rate swaps with an affiliated company to hedge obligations on an aggregate principal of \$1,050 million of the 2.875% USD notes, due 2022. After considering the impact of such swaps, \$1,050 million of the outstanding principal became floating rate obligations and consequently are shown as floating rate debt in the table of long-term debt above.

The Company may redeem all outstanding notes prior to maturity, in whole or in part, at the greater of 100% of the principal amount of the notes to be redeemed and the sum of the present values of remaining scheduled payments of principal and interest (excluding interest accrued to the redemption date) discounted to the redemption date at a rate defined in the note terms, plus interest accrued at the redemption date. The notes, registered with the U.S. Securities and Exchange Commission, are fully and unconditionally guaranteed by ABB Ltd.

In addition, the notes contain cross-default clauses which would allow the noteholders to demand repayment if the Company or certain other members of the ABB Group were to default on any

borrowing at or above a specified threshold. The notes constitute unsecured obligations of the Company and rank pari passu with other debt obligations of the ABB Group.

5. Derivative Financial Instruments

The Company is exposed to interest rate risks arising from its debt issuance activities. The Company used derivative instruments to manage the impact of certain exposures.

Interest rate risk: The Company has issued bonds at fixed interest rates. Interest rate swaps are used to manage the interest rate risk associated with certain of the Company's debt.

Volume of derivative activity: At December 31, 2018 and 2017, the gross notional amount of outstanding interest rate swaps was \$1,050 million.

Fair value hedges: The Company utilizes interest rate swaps to modify characteristics of its long-term debt, in particular, to effectively convert certain fixed-rate long-term debt into floating rate obligations. The carrying value of debt, designated as being hedged by fair value hedges, is adjusted for changes in the fair value of the risk component of the debt being hedged.

The changes in fair value of the hedging instruments, as well as the changes in the fair value of the risk component of the underlying debt being hedged, are recorded as offsetting gains and losses in "Other" in the Statements of Income. Hedge ineffectiveness of instruments designated as fair value hedges amounted to \$0.2 million in 2018 (\$0.8 million in 2017).

	2018	2017
	<i>(Dollars in Thousands)</i>	
Gains (losses) recognized:		
- on derivatives designated as fair value hedges.....	(\$17,207)	(\$14,323)
- on hedged item	17,434	15,141

6. Fair Values

The fair value of financial instruments remeasured on a recurring basis as of December 31 were as follows:

	2018			Total Fair Value Assets
	Level 1	Level 2	Level 3	
	<i>(Dollars in Thousands)</i>			
Assets				
Derivative assets – affiliated companies	\$ –	\$ 2,167	\$ –	\$ 2,167
	2017			Total Fair Value Assets
	Level 1	Level 2	Level 3	
	<i>(Dollars in Thousands)</i>			
Assets				
Derivative assets – affiliated companies	\$ –	\$ 19,374	\$ –	\$ 19,374

The fair values of financial instruments carried on a cost basis as of December 31 were as follows:

	2018				Total Fair Value
	Carrying Value	Level 1	Level 2	Level 3	
	<i>(Dollars in Thousands)</i>				
Assets					
Short-term loans – affiliated companies	\$ 27,465	\$ 27,465	\$ –	\$ –	\$ 27,465
Long-term loans – affiliated companies	3,431,165	–	3,786,814	–	3,786,814
Liabilities					
Long-term debt – third parties	\$3,458,406	\$3,517,435	\$ –	–	\$3,517,435

	Carrying Value	2017			Total Fair Value
		Level 1	Level 2	Level 3	
<i>(Dollars in Thousands)</i>					
Assets					
Short-term loans – affiliated companies	\$ 24,769	\$ 24,769	\$ –	\$ –	\$ 24,769
Long-term loans – affiliated companies	1,937,213	–	2,273,466	–	2,273,466
Liabilities					
Long-term debt – third parties	\$1,978,858	\$2,083,360	\$ –	–	\$2,083,360

7. Financial Instruments

Financial instruments, which consist of loans and debt are carried at amortized cost (except for bonds in a fair value hedge relationship which are carried at amortized cost adjusted to fair value). The Company uses the following methods and assumptions in estimating fair value disclosures for financial instruments carried on a cost basis:

Short-term loans: For cash pool balances, the carrying amounts approximate the fair values as the items are short term in nature.

Long-term loans: Fair values are determined using a discounted cash flow methodology based upon loan rates of similar instruments (Level 2 inputs).

Short-term debt: Fair values of outstanding bonds are determined using quoted market prices (Level 1 inputs). No amount was outstanding at December 31, 2018.

Long-term debt: Fair values of outstanding bonds are determined using quoted market prices (Level 1 inputs).

8. Income Taxes

The components of income tax expense are as follows for the years ended December 31:

	2018	2017
<i>(Dollars in Thousands)</i>		
Current expense:		
Federal	0	181
Deferred expense:		
Federal	21	580
Total	<u>21</u>	<u>761</u>

The deferred tax asset for 2018 relates to hedging of the Company's issued debt and Net Operating Loss for tax purposes. The deferred tax asset for 2017 relates to hedging of the Company's issued debt. A reconciliation of income tax expense using the statutory United States federal income tax rate compared with the actual income tax provision is as follows:

	2018	2017
<i>(Dollars in Thousands)</i>		
Income before income taxes	103	1,335
Statutory tax rate	21%	35%
Computed taxes at statutory tax rate	21	467
Effects of changes in tax laws and enacted tax rates	0	294
Provision for income taxes	<u>21</u>	<u>761</u>

On December 22, 2017, the U.S. Government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the Tax Act). The Tax Act makes broad and complex changes to the U.S. tax code. The SEC staff issued Staff Accounting Bulletin No. 118, which has allowed the Company to record provisional amounts in "Provision for income taxes" in the 2017 financial statements. The estimated impact to the Company was an expense of \$294 thousand due to changes in tax rates. The amounts were finalized in 2018 and no change to the estimated figures was recorded.

INDEPENDENT AUDITOR'S REPORT OF ABB FINANCE (USA) Inc.

The Board of Directors

ABB Finance (USA) Inc.:

Report on the Financial Statements

We have audited the accompanying financial statements of ABB Finance (USA) Inc., which comprise the balance sheet as of December 31, 2018, and the related statements of income, changes in stockholders' equity, and cash flows for the year then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements 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 entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Opinion

In our opinion, the 2018 financial statements referred to above present fairly, in all material respects, the financial position of ABB Finance (USA) Inc. as of December 31, 2018, and the results of its operations and its cash flows for the year then ended in accordance with U.S. generally accepted accounting principles.

Other Matter

The financial statements of ABB Finance (USA) Inc. as of and for the year ended December 31, 2017 were audited by other auditors. Those auditors expressed an unqualified opinion on those financial statements in their report dated February 23, 2018.

/s/ KPMG LLP

Charlotte, North Carolina
March 25, 2019

SUBSCRIPTION AND SALE

Instruments may be sold from time to time under the Programme by the Issuers to any one or more of Barclays Bank Ireland PLC, Barclays Bank PLC, BNP Paribas, BofA Securities Europe SA, Citigroup Global Markets Europe AG, Citigroup Global Markets Limited, Crédit Agricole Corporate and Investment Bank, Credit Suisse Securities (Europe) Limited, Deutsche Bank AG, London Branch, Goldman Sachs International, HSBC Bank plc, ING Bank N.V., J.P. Morgan Securities plc., Merrill Lynch International, Morgan Stanley & Co. International plc, Société Générale, UBS Limited and UniCredit Bank AG and/or any other dealers appointed in accordance with the terms of the Dealership Agreement (as defined below) (the "**Dealers**"). The arrangements under which Instruments may from time to time be agreed to be sold by the Issuers to, and purchased by, Dealers are set out in the dealership agreement dated April 1, 2019 as amended and/or supplemented from time to time, (the "**Dealership Agreement**") and made between each of the Issuers, ABB Ltd and the Dealers. Any such agreement will, *inter alia*, make provision for the form and terms and conditions of the relevant Instruments, the price at which such Instruments will be purchased by the Dealers and the commissions or other agreed deductibles (if any) payable or allowable by the relevant Issuer in respect of such purchase. The Dealership Agreement makes provision for the resignation or termination of appointment of existing Dealers and for the appointment of additional or other Dealers either generally in respect of the Programme or in relation to a particular Tranche of Instruments.

In addition, in the ordinary course of their business activities, the Dealers and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of a relevant Issuer, the Guarantor and/or their respective affiliates. Certain of the Dealers or their affiliates that have a lending relationship with a relevant Issuer and/or the Guarantor routinely hedge their credit exposure to such relevant Issuer and/or the Guarantor consistent with their customary risk management policies. Typically, such Dealers and their affiliates would hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in securities, including potentially the Instruments issued under the Programme. Any such short positions could adversely affect future trading prices of Instruments issued under the Programme. The Dealers and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

United States of America

The Instruments have not been and will not be registered under the Securities Act and may not be offered, sold or delivered 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 meaning given to them by Regulation S under the Securities Act.

Each Dealer has agreed and each further Dealer appointed under the Programme will be required to agree that, except as permitted by the Dealership Agreement, and as described below, it will not offer, sell or deliver the Instruments, (i) as part of their distribution at any time or (ii) otherwise until 40 days after completion of the distribution of Instruments of the relevant Tranche (determined as set forth in the Dealership Agreement), within the United States or to, or for the account or benefit of, U.S. persons, and it will have sent to each dealer to which it sells Instruments during the distribution compliance period a confirmation or other notice setting forth the restrictions on offers and sales of the Instruments within the United States or to, or for the account or benefit of, U.S. persons. Terms used in the preceding sentence have the meaning given to them by Regulation S under the Securities Act.

In addition, until 40 days after the commencement of the offering of any Tranche of Instruments, any offer or sale of Instruments of such Tranche within the United States by a Dealer (whether or not participating in the offering) may violate the registration requirements of the Securities Act.

Bearer Instruments are subject to U.S. tax law requirements and may not be offered, sold or delivered within the United States or its possessions or to a U.S. person except in certain transactions permitted by U.S. tax regulations. Terms used in this paragraph have the meanings given to them by the United States Internal Revenue Code of 1986, as amended, and United States Treasury Department regulations thereunder.

Selling Restrictions Addressing Additional Securities Laws of The Netherlands

Each Dealer has represented, warranted and agreed, and each further Dealer appointed under the Programme will be required to represent, warrant and agree, that it will not make an offer of Instruments which are the subject of the offering contemplated by this Information Memorandum as completed by the Final Terms in relation thereto (or are the subject of the offering contemplated by a Drawdown Information Memorandum, as the case may be) to the public in The Netherlands unless:

- (a) such offer is made exclusively to legal entities which are qualified investors (as defined in the Dutch Financial Supervision Act (*Wet op het financieel toezicht*, the "FMSA") and which includes authorised discretionary asset managers acting for the account of retail investors under a discretionary investment management contract) in The Netherlands; or
- (b) standard exemption logo and wording is disclosed as required by article 5:20(5) of the FMSA; or
- (c) such offer is otherwise made in circumstances in which article 5:20(5) of the FMSA is not applicable,

provided that no such offer of Instruments 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, (i) the expression an "**offer of Instruments to the public**" in relation to any Instruments in The Netherlands means the communication in any form and by any means of sufficient information on the terms of the offer and the Instruments to be offered so as to enable an investor to decide to purchase or subscribe the Instruments, as the same may be varied in The Netherlands by any measure implementing the Prospectus Directive in The Netherlands and (ii) the expression "**Prospectus Directive**" means Directive 2003/71/EC as amended or superseded.

Zero Coupon Instruments may not, directly or indirectly, as part of their initial distribution (or immediately thereafter) or as part of any re-offering be offered, sold, transferred or delivered in The Netherlands. As used herein "**Zero Coupon Instruments**" are Instruments that are in bearer form and that constitute a claim for a fixed sum against the Issuer and on which interest does not become due during their tenor or on which no interest is due whatsoever.

Selling Restrictions Addressing Additional Securities Laws of the United Kingdom

Each Dealer has represented and agreed, and each further Dealer appointed under the Programme will be required to represent and agree, that:

- (i) in relation to any Instruments which have a maturity of less than one year, (i) 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 (ii) it has not offered or sold and will not offer or sell any Instruments 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 Instruments would otherwise constitute a contravention of Section 19 of the FSMA by the relevant Issuer;
- (ii) 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 Instruments in circumstances in which Section 21(1) of the FSMA does not apply to the relevant Issuer or ABB Ltd; and
- (iii) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to any Instruments in, from or otherwise involving the United Kingdom.

PRIIPs Regulation

Unless the Final Terms in respect of any Instruments specifies the "Prohibition of Sales to EEA Retail Investors" as "Not Applicable", each Dealer has represented and agreed, and each further Dealer appointed under the Programme will be required to represent and agree, that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Instruments which are the subject of the offering contemplated by this Information Memorandum as completed by the Final Terms in relation thereto to any retail investor in the European Economic Area. For the purposes of this provision 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 MiFID II; or
- (ii) a customer within the meaning of Directive 2002/92/EC (as amended or superseded), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II.

Japan

The Instruments 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 "**FIEA**"). Accordingly, each Dealer has represented and agreed, and each further Dealer appointed under the Programme will be required to represent and agree, that it has not, directly or indirectly, offered or sold and will not, directly or indirectly, offer to sell any Instruments in Japan or to, or for the benefit of, a resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organised under the laws of Japan) or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the benefit of, any resident in Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, FIEA and other relevant laws and regulations of Japan.

Singapore

Each Dealer has acknowledged, and each further Dealer appointed under the Programme will be required to acknowledge, that this Information Memorandum has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, each Dealer has represented, warranted and agreed, and each further Dealer appointed under the Programme will be required to represent, warrant and agree, that it has not offered or sold any Instruments or caused the Instruments to be made the subject of an invitation for subscription or purchase and will not offer or sell any Instruments or cause the Instruments 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 Information Memorandum or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Instruments, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the SFA) pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, 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 Instruments 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 Section 4A of 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,

securities or securities-based derivatives contracts (each term 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 Instruments 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;
- (4) as specified in Section 276(7) of the SFA; or
- (5) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

General

No action has been or will be taken in any country or jurisdiction by the relevant Issuer, the Guarantor or the Dealers that would, or is intended to, permit a public offering of Instruments in any country or jurisdiction where action for that purpose is required. Each Dealer has agreed that it will observe all applicable laws and regulations in each country or jurisdiction in or from which it may acquire, offer, sell or deliver Instruments or have in its possession or distribute the Information Memorandum or any other offering material.

Each Dealer has further agreed that it will not directly or indirectly offer, sell or deliver any Instruments or distribute or publish the Information Memorandum or any other offering material in or from any country or jurisdiction except under circumstances that will, in its reasonable belief, result in compliance with any applicable laws and regulations and all offers and sales of Instruments by it will be made on the foregoing terms.

Other persons into whose hands this Information Memorandum or any Final Terms comes are required by the relevant Issuer and the Dealers to comply with all applicable laws and regulations in each country or jurisdiction in or from which they acquire, offer, sell or deliver Instruments or possess, distribute or publish this Information Memorandum or any Final Terms or any related offering material, in all cases at their own expense.

The Dealership Agreement provides that the Dealers shall not be bound by any of the restrictions relating to any specific jurisdiction (set out above) to the extent that such restrictions shall, as a result of change(s) or change(s) in official interpretation, after the date hereof, of applicable laws and regulations, no longer be applicable but without prejudice to the obligations of the Dealers described in the paragraph headed "*General*" above.

Selling restrictions may be supplemented or modified with the agreement of the relevant Issuer. Any such supplement or modification may be set out in the relevant Final Terms (in the case of a supplement or modification relevant only to a particular Tranche of Instruments) or in a supplement to this Information Memorandum.

TAXATION

The following is a general description of certain tax considerations relating to the Instruments. It does not purport to be a complete analysis of all tax considerations relating to the Instruments, whether in those countries or elsewhere. Prospective purchasers of Instruments should consult their own tax advisers as to which countries' tax laws could be relevant to acquiring, holding and disposing of Instruments and receiving payments of interest, principal and/or other amounts under the Instruments and the consequences of such actions under the tax laws of those countries. This summary is based upon the law as in effect on the date of this Information Memorandum and is subject to any change in law that may take effect after such date.

Luxembourg

The following is a general description of certain Luxembourg tax considerations relating to the Instruments. It specifically contains information on taxes on the income from the Instruments withheld at source and provides an indication as to whether the Issuer assumes responsibility for the withholding of taxes at the source. It does not purport to be a complete analysis of all tax considerations relating to the Instruments, whether in Luxembourg or elsewhere. Prospective purchasers of the Instruments should consult their own tax advisers as to which countries' tax laws could be relevant to acquiring, holding and disposing of the Instruments payments of interest, principal and/or other amounts under the Instruments and the consequences of such actions under the tax laws of Luxembourg. This summary is based upon the law as in effect on the date of this Information Memorandum. The information contained within this section is limited to withholding taxation issues, and prospective investors should not apply any information set out below to other areas, including (but not limited to) the legality of transactions involving the Instruments.

All payments of interest and principal by the Issuer in the context of the holding, disposal, redemption or repurchase of the Instruments, which are not profit sharing, can be made free and clear of any withholding or deduction for or on account of any taxes of whatsoever nature imposed, levied, withheld, or assessed by Luxembourg or any political subdivision or taxing authority thereof or therein, in accordance with the applicable Luxembourg law, subject however to regarding Luxembourg resident individual holders of Instruments, the application of the Luxembourg law of 23 December 2005, as amended (the "**Law**") which has introduced a 20 per cent. withholding tax on savings income (i.e., with certain exemptions, savings income within the meaning of the Law) paid by a paying agent within the meaning of the Law established in Luxembourg.

Responsibility for the withholding of tax in application of the Law is assumed by the Luxembourg paying agent within the meaning of the Law and not by the Issuer.

Pursuant to the law of 23 December 2005 as amended, Luxembourg resident individuals who are the beneficial owners of savings income paid by a paying agent established outside Luxembourg, in a Member State of either the European Union or the European Economic Area can opt to self declare and pay a 20 per cent. tax (the "**Levy**") on these savings income.

The 20 per cent. withholding tax as described above or the Levy are final when Luxembourg resident individuals are acting in the context of the management of their private wealth.

The Netherlands

The following summary of certain Dutch taxation matters is based on the laws and practice in force as of the date of this Information Memorandum and is subject to any changes in law and the interpretation and application thereof, which changes could have retroactive effect. The following summary does not purport to be a comprehensive description of all the tax considerations that may be relevant to a decision to acquire, hold or dispose of Instruments, and does not purport to deal with the tax consequences applicable to all categories of investors, some of which may be subject to special rules.

Among other things, this summary deals with the Dutch tax consequences of a holder of Instruments where such holder has or will have a substantial interest or deemed substantial interest in the Issuer or where a connected person (*verbonden persoon*) has a deemed substantial interest in the Issuer.

Generally speaking, an individual has a substantial interest in a company if (a) such individual, either alone or together with his partner, directly or indirectly has or is deemed to have, or (b) certain relatives of such individual or his partner directly or indirectly have or are deemed to have, (i) the ownership of, a right to

acquire the ownership of, or certain rights over, shares representing 5 per cent. or more of either the total issued and outstanding capital of such company or the issued and outstanding capital of any class of shares of such company, or (ii) the ownership of, or certain rights over, profit participating certificates (*winstbewijzen*) that relate to 5 per cent. or more of either the annual profit or the liquidation proceeds of such company. Generally, an individual or his partner or relevant relative has a deemed substantial interest in a company if either (a) such person or his predecessor has disposed of or is deemed to have disposed of all or part of a substantial interest or (b) such person has transferred an enterprise in exchange for shares in such company, on a non-recognition basis.

Generally speaking, a non-resident entity has a substantial interest in a company if such entity directly or indirectly has (i) the ownership of, a right to acquire the ownership of, or certain rights over, shares representing 5 per cent. or more of either the total issued and outstanding capital of such company or the issued and outstanding capital of any class of shares of such company, or (ii) the ownership of, or certain rights over, profit participating certificates (*winstbewijzen*) that relate to 5 per cent. or more of either the annual profit or the liquidation proceeds of such company. Generally, an entity has a deemed substantial interest in a company if such entity has disposed of or is deemed to have disposed of all or part of a substantial interest on a non-recognition basis.

For the purpose of this summary, the term "entity" means a corporation as well as any other person that is taxable as a corporation for Dutch corporate tax purposes.

Where this summary refers to a holder of Instruments, an individual holding Instruments or an entity holding Instruments, such reference is restricted to an individual or entity holding legal title to as well as an economic interest in such Instruments or otherwise being regarded as owning Instruments for Dutch tax purposes. It is noted that for purposes of Dutch income, corporate and gift and inheritance tax, assets legally owned by a third party such as a trustee, foundation or similar entity, may be treated as assets owned by the (deemed) settlor, grantor or similar originator or the beneficiaries in proportion to their interest in such arrangement.

Where the summary refers to "the Netherlands" or "Dutch" it refers only to the European part of the Kingdom of the Netherlands.

Investors should consult their professional advisers as to the tax consequences of acquiring, holding and disposing of Instruments.

Withholding tax

All payments by the relevant Issuer of principal and interest under the Instruments can be made without withholding or deduction of any taxes of whatever nature imposed, levied, withheld or assessed by the Netherlands or any political subdivision or taxing authority thereof or therein, unless the relevant Instruments (i) are issued under such terms and conditions that such Instruments qualify as equity of the Issuer for Dutch tax purposes or (ii) actually function as equity of the Issuer within the meaning of article 10, paragraph 1, letter d, of the Dutch Corporation Tax Act 1969 (*Wet op de vennootschapsbelasting 1969*) or (iii) are redeemable in exchange for, convertible into or linked to shares or other equity instruments issued or to be issued by the Issuer or by an entity related to the Issuer.

Taxes on income and capital gains

A holder of Instruments which is not, and is not deemed to be, resident in the Netherlands for the relevant tax purposes will not be subject to taxation in the Netherlands on income or a capital gain derived from the Instruments unless:

- (i) the income or capital gain is attributable to an enterprise or part thereof which is either effectively managed in the Netherlands or carried on through a permanent establishment (*vaste inrichting*) or a permanent representative (*vaste vertegenwoordiger*) taxable in the Netherlands and the holder of Instruments derives profits from such enterprise (other than by way of the holding of securities); or
- (ii) the holder is not an individual and has, directly or indirectly, a substantial interest (*aanmerkelijk belang*) or a deemed substantial interest in the Issuer or, in the case of Instruments that are exchangeable into shares of a Dutch tax resident entity, such interest in the entity the shares of

which are subject of the exchange right, and such interest is held with the main purpose or one of the main purposes of avoiding personal income tax for another person; or

- (iii) the holder is an individual and such holder or a person connected to such holder (*verbonden persoon*) has, directly or indirectly, a substantial interest in the Issuer or, in the case of Instruments that are exchangeable into shares of a Dutch tax resident entity, has such interest or deemed substantial interest in the entity the shares of which are subject of the exchange right; or
- (iv) the income or capital gain qualifies as income from miscellaneous activities (*belastbaar resultaat uit overige werkzaamheden*) in the Netherlands as defined in the Income Tax Act (*Wet inkomstenbelasting 2001*), including, without limitation, activities that exceed normal, active asset management (*normaal, actief vermogensbeheer*).

Gift and inheritance taxes

Dutch gift or inheritance taxes will not be levied on the occasion of the transfer of Instruments by way of gift by, or on the death of, a holder of Instruments, unless:

- (i) such holder is or is deemed to be resident in the Netherlands for the purpose of the relevant provisions; or
- (ii) the transfer is construed as an inheritance or gift made by, or on behalf of, a person who, at the time of the gift or death, is or is deemed to be resident in the Netherlands for the purpose of the relevant provisions; or
- (iii) the transfer is a gift by such holder who at the date of the gift was neither resident nor deemed to be resident in the Netherlands and such individual dies within 180 days after such date while being resident or deemed to be resident in The Netherlands.

Value added tax

There is no Dutch value added tax payable by a holder of Instruments in respect of payments in consideration for the acquisition of Instruments, payments of principal or interest under the Instruments, or payments in consideration for a disposal of Instruments.

Other taxes and duties

There is no Dutch registration tax, stamp duty or any other similar tax or duty payable in the Netherlands by a holder of Instruments in respect of or in connection with the execution, delivery and/or enforcement by legal proceedings (including any foreign judgment in the courts of the Netherlands) of the Instruments or the performance of the Issuer's obligations under the Instruments.

Residence

A holder of Instruments will not be and will not be deemed to be resident in the Netherlands for Dutch tax purposes and, subject to the exceptions set out above, will not otherwise become subject to Dutch taxation, by reason only of acquiring, holding or disposing of Instruments or the execution, performance, delivery and/or enforcement of Instruments.

Switzerland

The following summary contains a description of certain aspects of the Swiss federal, cantonal and communal tax consequences in respect of the purchase, ownership and disposition of Instruments, if they qualify as pure debt instruments for Swiss tax purposes. This summary is based on Swiss laws and regulations and the practice of the Swiss Federal Tax Administration now in effect, all of which are subject to change, possibly with retroactive effect. It does not purport to be a comprehensive description of all the tax considerations that may be relevant to a decision of an investor to purchase, hold or dispose of Instruments. Potential investors are advised to consult their own professional advisers in light of their particular circumstances.

Swiss Federal Withholding Tax

According to current Swiss tax law and the present practice of the Swiss Federal Tax Authority, payments of interest on the Instruments and repayment of principal of the Instruments by the foreign Issuer is not subject to Swiss withholding tax, provided that the Issuer is at all times resident and managed outside Switzerland for Swiss tax purposes and that the proceeds will be used in Switzerland only up to the amount accepted by the Swiss Federal Tax Administration according to their practice published on February 5, 2019.

On November 4, 2015 the Swiss Federal Council announced a mandate to the Swiss Federal Finance Department to institute a group of experts tasked with the preparation of a new proposal for a reform of the Swiss withholding tax system. The new proposal is expected to include in respect of interest payments the replacement of the existing debtor-based regime by a paying agent-based regime for Swiss withholding tax similar to the one published on December 17, 2014 by the Swiss Federal Council and repealed on June 24, 2015 following the negative outcome of the legislative consultation with Swiss official and private bodies. Under such a new paying agent-based regime, if enacted, a paying agent in Switzerland may be required to deduct Swiss withholding tax on any payments or any securing of payments of interest in respect of an Instrument for the benefit of the beneficial owner of the payment unless certain procedures are complied with to establish that the owner of the Instrument is not an individual resident in Switzerland.

Swiss Federal Stamp Duties

The issue and the redemption of the Instruments is neither subject to Swiss federal issuance stamp duty nor to Swiss federal transfer stamp duty.

Dealings in Instruments with a term in excess of twelve months, where a Swiss domestic bank or a Swiss domestic security dealer (both terms as defined in the Swiss Federal Stamp Duty Act) acts as party or intermediary, may, subject to certain exemptions, be liable to the Swiss federal transfer stamp duty at a rate of up to 0.3 per cent. An exemption, *inter alia*, applies where both seller and purchaser are non-residents of Switzerland or of the Principality of Liechtenstein.

Income Taxation

Instruments held by non-Swiss holders

Under present Swiss law, a holder of Instruments who is a non-resident of Switzerland and who, during the taxation year, has not engaged in a trade or business through a permanent establishment within Switzerland and who is not subject to income taxation for any other reason will not be liable to Swiss federal, cantonal or communal income taxation on payments of interest on the Instruments, repayment of principal of the Instruments, or gains realised during that year on the sale or redemption of an Instrument.

Instruments held by Swiss holders as private assets

Instruments without a "predominant one-time interest payment": An individual who resides in Switzerland and privately holds an Instrument the yield-to-maturity of which predominantly derives from periodic interest payments and not from a one-time-interest-payment such as an original issue discount or a repayment premium, is required to include all payments of interest received on such Instrument as well as an original issue discount or a repayment premium in his or her personal income tax return for the relevant tax period and is taxable on the net taxable income (including the payment of interest on the Instrument) for such tax period at the then prevailing tax rates.

Instruments with a "predominant one-time interest payment": An individual who resides in Switzerland and privately holds an Instrument the yield-to-maturity of which predominantly derives from a one-time-interest-payment such as an original issue discount or a repayment premium and not from periodic interest payments, is required to include in his or her personal income tax return for the relevant tax period any periodic interest payments received on the Instrument and, in addition, any amount equal to the difference between the value of the Instrument at redemption or sale, as applicable, and the value of the Instrument at issuance or secondary market purchase, as applicable, realized on the sale or redemption of such Instrument, and converted into Swiss Francs at the exchange rate prevailing at the time of sale or redemption, issuance or purchase, respectively, and will be taxable on any net taxable income (including such amounts) for the relevant tax period. A holder of an Instrument may offset any value decrease realized by him or her on such an Instrument on sale or redemption against any gains (including periodic interest payments) realized by

him or her within the same taxation period on the sale or redemption of other debt securities with a predominant one-time interest payment.

Capital gains and losses: Swiss resident individuals who sell or otherwise dispose of privately held Instruments realize either a tax-free private capital gain or a non-tax-deductible capital loss. See the preceding paragraph for a summary of the tax treatment of a gain or a loss realized on Instruments with a "predominant one-time interest payment." See "Instruments held as Swiss business assets" below for a summary on the tax treatment of individuals classified as "professional securities dealers."

Instruments held as business assets

Individual taxpayers who hold Instruments as part of Swiss business assets and corporate taxpayers holding Instruments as part of Swiss business assets who receive payments of interest on Instruments are required to recognise the payments of interest on Instruments as earnings in their profit and loss statement for the respective tax period, and may be taxable on any net earnings (including the payments of interest on the Instruments) for such period.

Individual taxpayers who hold Instruments as part of Swiss business assets and corporate taxpayers holding Instruments as part of Swiss business assets are required to recognise capital gains or losses realised on the sale of Instruments in their profit and loss statement for the respective tax period, and will be taxable on any net taxable profit for such period. The same applies to Swiss resident individuals who for income tax purposes are classified as professional securities dealers because of frequent dealing, involvement in debt-financed purchases and like criteria.

Automatic Exchange of Information

On November 19, 2014, Switzerland signed the Multilateral Competent Authority Agreement (the "MCAA"). The MCAA is based on article 6 of the OECD/Council of Europe administrative assistance convention and is intended to ensure the uniform implementation of Automatic Exchange of Information (the "AEOI"). The Federal Act on the International Automatic Exchange of Information in Tax Matters (the "AEOI Act") entered into force on January 1, 2017. The AEOI Act is the legal basis for the implementation of the AEOI standard in Switzerland.

The AEOI is being introduced in Switzerland through bilateral agreements or multilateral agreements. The agreements have, and will be, concluded on the basis of guaranteed reciprocity, compliance with the principle of speciality (i.e. the information exchanged may only be used to assess and levy taxes (and for criminal tax proceedings)) and adequate data protection.

Based on such multilateral agreements and bilateral agreements and the implementing laws of Switzerland, Switzerland collects and exchanges data in respect of financial assets, including the Instruments, held in, and income derived thereon and credited to, accounts or deposits with a paying agent in Switzerland for the benefit of individuals resident in an EU member state or in a treaty state.

Swiss Facilitation of the Implementation of the U.S. Foreign Account Tax Compliance Act

Switzerland has concluded an intergovernmental agreement with the U.S. to facilitate the implementation of FATCA. The agreement ensures that the accounts held by U.S. persons with Swiss financial institutions are disclosed to the U.S. tax authorities either with the consent of the account holder or by means of group requests within the scope of administrative assistance. Information will not be transferred automatically in the absence of consent, and instead will be exchanged only within the scope of administrative assistance on the basis of the double taxation agreement between the U.S. and Switzerland. On 8 October 2014, the Swiss Federal Council approved a mandate for negotiations with the U.S. on changing the current direct notification-based regime to a regime where the relevant information is sent to the Swiss Federal Tax Administration, which in turn provides the information to the U.S. tax authorities.

United States Tax Considerations

The following is a summary based on present law of certain United States federal income tax considerations for a prospective purchaser of Instruments issued by ABB USA. This summary addresses only the tax considerations for an initial Holder of the Instruments that acquires Instruments on their original issue at their original offering price and that is not a U.S. Person (a "**Non-U.S. Holder**"). For this purpose, a "U.S. Person" is a beneficial owner of a Note that is (i) a citizen or individual resident of the United States, (ii) a

corporation, partnership or other entity created or organised in or under the laws of the United States or its political subdivisions, (iii) an estate the income of which is subject to United States federal income taxation regardless of its source or (iv) a trust subject to the control of a U.S. person and the primary supervision of a U.S. court. This summary also assumes that the Instruments will be treated as debt for United States federal tax purposes and that the Instruments will be offered, sold and delivered in compliance with and payments on the Instruments will be made in accordance with certain required procedures set forth in the Terms and Conditions of the Instruments and other relevant documents. Non-U.S. Holders should consult their tax advisors as to whether any particular Instruments will be treated as debt for United States federal income tax purposes, and as to the United States tax considerations relevant to them of purchasing, holding or disposing of any Instruments which are not so treated. Finally, it does not describe any other U.S. federal tax consequences (such as estate and gift tax consequences) or tax consequences arising out of the tax laws of any state, local or non-U.S. jurisdiction.

This summary does not address all tax considerations for a beneficial owner of the Instruments and does not address the tax consequences to a Non-U.S. Holder in special circumstances, such as foreign governments and their integral parts and controlled entities and foreign central banks. It addresses only purchasers that hold Instruments as capital assets. It does not include a discussion of Instruments other than Instruments paying interest at a Fixed Rate or a Floating Rate whose rate is based on a conventional interest rate or composite of interest rates, and Non-U.S. Holders should consult their tax advisors regarding the United States tax considerations relevant to them of purchasing, holding or disposing of any such Instruments. The discussion is a general summary. It is not a substitute for tax advice.

U.S. Taxation of Instruments

Subject to the discussion below under the headings "United States Foreign Account Tax Compliance Act Withholding" and "U.S. Information Reporting and Backup Withholding", interest paid to a Non-U.S. Holder will not be subject to U.S. withholding tax, provided that:

- (i) interest paid on the Note is not effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States;
- (ii) the Non-U.S. Holder is not, and has not been a "10 per cent. shareholder" of ABB USA as defined in Section 871(h)(3) of the Code;
- (iii) in the case of Instruments with a maturity of more than 183 days, on or before the first payment of interest or principal, the Non-U.S. Holder has provided the Paying Agents with a valid and properly executed U.S. Internal Revenue Service Form W-8 (or successor or substitute therefor) or other appropriate form of certification of non-U.S. status sufficient to establish a basis for exemption under sections 871(h)(2)(B) and 881(c)(2)(B) of the Code or equivalent certification of non-U.S. beneficial ownership has been provided by a qualified intermediary through which such non-U.S. beneficial owner holds the Instruments; and
- (iv) no amounts are considered "dividend equivalent payments" under section 871(m).

If the Non-U.S. Holder is a partnership or trust for United States federal income tax purposes, interest paid to it may be subject to U.S. withholding tax unless all of its partners or beneficiaries can satisfy the conditions for exemption above.

If a Non-U.S. Holder cannot satisfy the requirements described above, payments of interest made to such Non-U.S. Holder generally will be subject to a 30 per cent. U.S. federal withholding tax, unless such Non-U.S. Holder provides the applicable withholding agent with a properly executed (1) IRS Form W-8BEN or W-8BEN-E (or suitable successor or substitute form) claiming an exemption from or reduction in withholding under the benefit of an applicable income tax treaty or (2) IRS Form W-8ECI (or suitable successor or substitute form) stating that interest paid on the Note is not subject to withholding tax because it is effectively connected with such Non-U.S. Holder's conduct of a trade or business in the United States.

Interest paid to a Non-U.S. Holder will not be subject to U.S. federal net income tax unless the interest is effectively connected with the Non-U.S. Holder's conduct of a U.S. trade or business and, if required by an applicable income tax treaty, is attributable to a permanent establishment of the Non-U.S. Holder within the United States. If a Non-U.S. Holder is eligible for the benefits of an income tax treaty between the United States and its country of residence, interest paid to such Non-U.S. Holder will be subject to U.S.

federal income tax in the manner specified by the treaty and generally will only be subject to such tax if such interest is attributable to a permanent establishment maintained by the Non-U.S. Holder in the United States. To claim the benefit of a treaty, a Non-U.S. Holder must properly submit an IRS Form W-8BEN or W-8BEN-E (or suitable successor or substitute form).

A gain realized by a Non-U.S. Holder on the disposition of a Note will not be subject to U.S. tax unless (i) the gain is effectively connected with such Non-U.S. Holder's conduct of a U.S. trade or business and, if required by an applicable income tax treaty, is attributable to a permanent establishment of the Non-U.S. Holder within the United States, or (ii) the Holder is an individual present in the United States for at least 183 days during the taxable year of disposition and certain other conditions are met. A Non-U.S. Holder described in (ii) of the preceding sentence generally will be subject to a flat 30 per cent. U.S. federal income tax on the gain derived from the sale, which may be offset by U.S. source capital losses, even though the Non-U.S. Holder is not considered a resident of the United States.

U.S. Information Reporting and Backup Withholding

Payments of principal and interest on the Instruments generally will not be subject to United States information reporting or backup withholding.

Proceeds from the sale, exchange or other disposition of a Note generally will not be subject to United States information reporting unless the sale is effected through the United States office of a broker or the foreign office of a broker that is a U.S. person, is controlled by U.S. persons or receives most of its income from (or in the case of a partnership, conducts) a business in the United States. Such proceeds will not be subject to United States backup withholding unless the sale is effected through a United States office of a broker. Any amount withheld may be credited against a Holder's United States federal income tax liability or refunded to the extent it exceeds the Holder's liability.

United States Foreign Account Tax Compliance Act Withholding

In respect of Instruments issued by ABB USA, payments of interest (including any original issue discount) and premium, if any, generally will be subject to U.S. withholding tax under FATCA unless (i) the holder provides the ABB USA, any paying agent, U.S. intermediary or any other non-U.S. financial institution intermediary through which it holds such Instruments or receives payments on or with respect to such Instruments with information necessary to determine whether the investor is a U.S. person or a non-financial, non-U.S. entity with material direct or indirect U.S. ownership or is a foreign financial institution that itself satisfies clause (ii) and (ii) each non-U.S. financial institution through which such holder holds such Instruments or receives payments on or with respect to such Instruments either (x) has entered into an agreement with the U.S. Internal Revenue Service ("**IRS**") pursuant to which it agrees, among other responsibilities, to collect and provide to the IRS information about its direct and indirect U.S. accountholders and investors or (y) is subject to and in full compliance with the requirements of any applicable intergovernmental agreement between the jurisdiction of its place of organization or operation and the United States implementing an alternative to FATCA.

Under the intergovernmental agreement entered into between the United States and the Netherlands facilitating the implementation of FATCA and implemented by Dutch law, ABB Netherlands expects that it will not be treated as a financial institution. Accordingly, payments with respect to Instruments issued by ABB Netherlands generally should not be subject to FATCA withholding. Nevertheless, if ABB Netherlands were to be treated as a financial institution, it is possible that payments made on or after the date that is two years after final regulations defining "foreign passthru payments" are filed with the U.S. Federal Register on Instruments that are issued more than six months after such final regulations are so filed would be subject to FATCA withholding in respect of the portion of any such payments as are considered to be "foreign passthru payments" under such final regulations.

Prospective investors should consult their tax advisers on how these rules may apply to the relevant Issuer and to payments they may receive in connection with the Instruments. No additional amounts will be paid by the Relevant Issuer or the Guarantor in respect of any U.S. tax withheld or deducted under or in respect of FATCA. Prospective investors are encouraged to consult with their own tax advisers regarding the possible implications of this legislation on their investment in the Instruments.

THE DISCUSSION ABOVE IS A GENERAL SUMMARY. IT DOES NOT COVER ALL TAX MATTERS THAT MAY BE IMPORTANT TO A PARTICULAR INVESTOR. EACH

PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISER ABOUT THE TAX CONSEQUENCES OF AN INVESTMENT IN THE INSTRUMENTS UNDER THE INVESTOR'S OWN CIRCUMSTANCES.

The proposed financial transaction tax ("FTT")

On 14 February 2013, the European Commission published a proposal (the "**Commission's proposal**") for a Directive for a common FTT in Belgium, Germany, Estonia, Greece, Spain, France, Italy, Austria, Portugal, Slovenia and Slovakia (the "**participating Member States**"). However, Estonia has since stated that it will not participate.

The Commission's proposal has very broad scope and could, if introduced, apply to certain dealings in the Instruments (including secondary' market transactions) in certain circumstances.

Under the Commission's proposal, 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 Instruments where at least one party is a financial institution, 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.

However, the FTT proposal remains subject to negotiation between 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 Instruments are advised to seek their own professional advice in relation to the FTT.

GENERAL INFORMATION

1. Application has been made to the Luxembourg Stock Exchange in its capacity as the market operator of the Euro MTF Market for Instruments issued under the Programme to be admitted to trading on the Luxembourg Stock Exchange's Euro MTF Market and to be listed on the Official List of the Luxembourg Stock Exchange. The Euro MTF Market of the Luxembourg Stock Exchange is not a regulated market for the purposes of the Prospectus Act 2005 or the Markets in Financial Instruments Directive.
2. The Programme has been approved by SIX Swiss Exchange Ltd as an "issuance programme" for the listing of bonds in accordance with the listing rules of SIX Swiss Exchange. Application may be made to SIX Swiss Exchange for Instruments issued under the Programme to be admitted to trading and to be listed on SIX Swiss Exchange.
3. The update of the Programme was authorised by (i) a resolution of the Board of Managing Directors of ABB Netherlands adopted on March 20, 2019, and (ii) a resolution of the Board of Managing Directors of ABB USA adopted on March 20, 2019. The Guarantor has authorised the giving of the Guarantee in accordance with an excerpt dated March 29, 2019, from February 26-27, 2019 minutes of the meeting of the board of directors of the Guarantor.
4. The Legal Entity Identifier ("**LEI**") code of ABB Netherlands is 5493004JXXFB454B6L79. The LEI code of ABB USA is 5493002Y01YAFV45F528.
5. Save as disclosed in this Information Memorandum, there are no governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened, of which ABB Netherlands, ABB USA or ABB Ltd is aware) which may have, or have had during the 12 months prior to the date of this Information Memorandum, a significant effect on the financial position or profitability of ABB Netherlands, ABB USA, ABB Ltd or the ABB Group.
6. Since December 31, 2018 there has been no material adverse change in the prospects of ABB Netherlands or ABB USA nor any significant change in the financial or trading position of ABB Netherlands or ABB USA. Since December 31, 2018 there has been no material adverse change in the prospects of ABB Ltd or the ABB Group. Save as disclosed in this Information Memorandum, since December 31, 2018 there has been no significant change in the financial or trading position of ABB Ltd or the ABB Group.
7. Save as disclosed in this Information Memorandum there has been no material change in the assets and liabilities, financial position and profits and losses of ABB Netherlands, ABB USA or ABB Ltd since December 31, 2018.
8. Each of the Issuers and the Guarantor will, in the event of any significant new factor, material mistake or inaccuracy relating to information included in this Information Memorandum which is capable of affecting the assessment of any Instruments, prepare a supplement to this Information Memorandum or publish a new Information Memorandum for use in connection with any subsequent issue of Instruments.
9. The financial statements of ABB Netherlands for the year ended December 31, 2018 have been audited by KPMG Accountants N.V., Rotterdam, The Netherlands. KPMG Accountants N.V. issued an unqualified independent auditor's report on these financial statements and have given, and have not withdrawn, their consent to the inclusion of their independent auditor's report in this Information Memorandum in the form and context in which they are included. The registered auditors of KPMG Accountants N.V. are chartered accountants (*registeraccountants*) and are members of the *Koninklijke Nederlandse Beroepsorganisatie van Accountants - The Royal Netherlands Institute of Chartered Accountants(NBA)* and registered auditors qualified to practice in the Netherlands.
10. The financial statements of ABB USA as of and for the year ended December 31, 2018 have been audited by KPMG LLP (United States). KPMG LLP issued an unqualified auditors' report on these financial statements dated March 25, 2019 in accordance with the auditing standards generally accepted in the United States of America.

11. The consolidated financial statements of the Group as of December 31, 2018, which comprise the consolidated balance sheet as of December 31, 2018, and the related consolidated income statement, statements of comprehensive income, cash flows and changes in stockholders' equity for the year ended December 31, 2018, and the related notes, have been audited by KPMG AG, Zurich, a public accounting firm registered with the Swiss Federal Audit Oversight Authority and the Public Company Accounting Oversight Board (the "**PCAOB**").
12. The statutory financial statements of ABB Ltd, which comprise the balance sheet, income statement, cash flow statement and notes for the year ended December 31, 2018, have been audited in accordance with Swiss law and Swiss Auditing Standards by KPMG AG, independent auditors registered with the Swiss Federal Audit Oversight Authority to perform audits in Switzerland.
13. The consolidated financial statements of ABB Ltd and the statutory financial statements of ABB Ltd have been audited without qualification for the year ended December 31, 2017 by Ernst & Young AG, Maagplatz 1, CH-8010, Zurich, Switzerland, independent auditors registered with the Swiss Federal Audit Oversight Authority to perform audits in Switzerland.
14. Instruments have been accepted for clearance through Euroclear and Clearstream, Luxembourg. The appropriate common code, International Securities Identification Number ("**ISIN**"), Financial Instrument Short Name ("**FISN**"), Classification of Financial Instruments ("**CFI**") code, if any, and Swiss Security Number as applicable in relation to the Instruments of a particular Tranche and any other clearing system as shall have accepted the relevant Instruments for clearance will be specified in the relevant Final Terms.
15. Settlement arrangements will be agreed between the relevant Issuer, the relevant Dealer and the Fiscal Agent or, as the case may be, the Registrar in relation to each Tranche.
16. Each Temporary Global Instrument, Permanent Global Instrument, Definitive Instrument and Coupon will bear a legend substantially to the following effect: "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 U.S. Internal Revenue Code". The following sentence will be added to the legend if so specified in the relevant Final Terms: "*[This Instrument/The Coupon/The Instruments] represented hereby may not be offered, sold or delivered to residents of the United States*".
17. Copies of the following documents will be available during usual business hours on any weekday (Saturday and public holidays excepted) at the specified office of ABB Ltd in Zurich and the Fiscal Agent in Luxembourg:
 - (i) the Fiscal Agency Agreement;
 - (ii) the Dealership Agreement;
 - (iii) the Guarantee;
 - (iv) the Deeds of Covenant;
 - (v) the articles of association of ABB Netherlands, by-laws of ABB USA and the articles of incorporation of ABB Ltd;
 - (vi) each Final Terms. In the case of any Instruments in relation to which application has not been made for listing on any stock exchange, copies of the relevant Final Terms will only be available for inspection by a Holder of or, as the case may be, a relevant Accountholder (each as defined in the relevant Deed of Covenant) in respect of such Instruments;
 - (vii) any amendment or supplement to this Information Memorandum or further Information Memorandum;
 - (viii) the audited financial statements of ABB Netherlands for the year ended December 31, 2018;
 - (ix) the audited financial statements of ABB USA for the year ended December 31, 2018;

- (x) the audited consolidated financial statements of the Group for the year ended December 31, 2018;
 - (xi) the Issuer-ICSDs Agreement which is entered into between ABB Netherlands and Euroclear and/or Clearstream, Luxembourg (with respect to the settlement in Euroclear and/or Clearstream, Luxembourg of Instruments in New Global Note form); and
 - (xii) the Issuer-ICSDs Agreement which is entered into between the ABB USA and Euroclear and/or Clearstream, Luxembourg (with respect to the settlement in Euroclear and/or Clearstream, Luxembourg of Instruments in New Global Note form).
18. The Issuers do not publish interim financial information. The Guarantor publishes annual audited consolidated financial statements as well as quarterly unaudited interim consolidated financial information. The Guarantor also publishes annual audited statutory financial statements. The Guarantor does not publish interim statutory financial information.
19. As at the date stated on the front of this Information Memorandum no audited accounts of ABB Netherlands, ABB USA, ABB Ltd or the Group have been published in respect of any period subsequent to December 31, 2018.
20. Unless otherwise specified in the relevant Final Terms, in accordance with Article 43 of the Listing Rules of SIX Swiss Exchange, the relevant Issuer and ABB Ltd have appointed Homburger AG as recognised representative to lodge the relevant listing applications in relation to the Instruments with SIX Swiss Exchange.

SCHEDULE 1 GUARANTEE

This guarantee (the "**Guarantee**") dated April 1, 2019 is entered into by

ABB Ltd, Affolternstrasse 44, 8050 Zurich, Switzerland (the "**Guarantor**")

Whereas

- (A) ABB Finance B.V. and ABB Finance (USA) Inc. (each an "**Issuer**" and together the "**Issuers**") and the Guarantor have together established a programme (the "**Programme**"), for the issuance of up to USD 8,000,000,000 in aggregate principal amount of debt instruments (the "**Instruments**").
- (B) The Instruments will be issued pursuant to a dealership agreement dated as of April 1, 2019, as amended and restated from time to time, between the Guarantor, the Issuers, BNP Paribas as Arranger and the Dealers named in it (the "**Dealership Agreement**") and a fiscal agency agreement dated as of April 1, 2019, as amended and restated from time to time, among, *inter alia*, the Guarantor, the Issuers and the Paying Agents named in it (the "**Fiscal Agency Agreement**"). Each Issuer has executed a deed of covenant dated as of April 1, 2019, as amended and restated from time to time (each a "**Deed of Covenant**" and together the "**Deeds of Covenant**") in relation to the Instruments issued pursuant to the Programme.
- (C) In connection with the Programme, the Guarantor has agreed to issue this guarantee (the "**Guarantee**") to each of the holders of the Instruments and the Accountholders (as defined in the respective "**Deed of Covenant**") (the holders of the Instruments and the Accountholders, collectively the "**Holders**").
- (D) The Guarantee may be modified in accordance with the terms of the Fiscal Agency Agreement.

Now, therefore the Guarantor undertakes as follows:

1. Definitions

Terms defined in or for the purposes of the Fiscal Agency Agreement, the Dealership Agreement, the Deeds of Covenant and/or the Instruments shall have the same meaning in this Guarantee (including the Recitals), except where the context requires otherwise or where a different meaning is attributed to the relevant terms. Any references herein to any amounts payable, howsoever described, in respect of Instruments issued by an Issuer shall include any amounts payable by that Issuer under or in connection with its Deed of Covenant.

2. Guarantee

The Guarantor, in accordance with Article 111 of the Swiss Code of Obligations (*Schweizerisches Obligationenrecht*, "**CO**") and the terms hereof, as primary obligor and not merely as a surety, irrespective of the validity and the legal effects of the Instruments, irrespective of restrictions of any kind on the respective Issuer's performance of its obligations under the Instruments, and waiving all rights of objection and defense arising from the Instruments, hereby irrevocably and unconditionally guarantees to the Holders, the due and punctual payment of principal, premium (if any), and interest (including any additional amounts required to be paid in accordance with the terms and conditions of the Instruments) from time to time payable by an Issuer in respect of its Instruments as and when the same shall become due, whether at stated maturity, upon redemption or repurchase, by acceleration or otherwise, and accordingly undertakes to pay such Holder, in the manner and the currency set forth in the terms and conditions of the Instruments, any amount or amounts which an Issuer is at any time liable to pay in respect of such Instrument and which such Issuer has failed to pay, including amounts that become due in advance of their stated maturity as a result of acceleration. Any diligence, presentment, demand, protest or notice, whether in relation to the Guarantor, an Issuer, or any other person, from a Holder, in respect of any of the Guarantor's obligations under the Guarantee is hereby waived.

3. Status

The obligations of the Guarantor under this Guarantee constitute direct, unsecured and unsubordinated obligations of the Guarantor and the Guarantor undertakes that its obligations hereunder will rank *pari passu* with all other present or future direct, unsecured and unsubordinated obligations of the Guarantor, save for such obligations as may be mandatorily preferred by law.

4. Duration

This Guarantee is a guarantee of payment and not merely of collection and it shall continue in full force and effect by way of continuing security until all principal, premium and interest (including any additional amounts required to be paid in accordance with the terms and conditions of the Instruments) have been paid in full and all other actual or contingent obligations of the Issuers in relation to the Instruments or under the Programme have been satisfied in full.

Notwithstanding the foregoing, if any payment received by any Holder is, on the subsequent bankruptcy or insolvency of an Issuer, avoided under any applicable laws, including, among others, laws relating to bankruptcy or insolvency, such payment will not be considered as having discharged or diminished the liability of the Guarantor and this Guarantee will continue to apply as if such payment had at all times remained owing by such Issuer.

5. Taxation

All payments under this Guarantee shall be made free and clear of, and without withholding or deduction for, taxes, duties, assessments or governmental charges of whatever nature imposed, levied, collected, withheld or assessed by or within Switzerland or any authority therein or thereof having power to tax ("**Taxes**"), unless such withholding or deduction is required by law. In that event, the Guarantor shall pay such additional amounts as shall result in receipt by the relevant Holder of such amounts as would have been received by it had no such withholding or deduction been required ("**Additional Amounts**"), except that no such Additional Amounts shall be payable with respect to the Guarantee:

- (a) to, or to a third party on behalf of, a Holder or another beneficiary of the Guarantee, which is liable to such Taxes in respect of such payment under the Guarantee by reason of his having some connection with the jurisdiction by which such Taxes have been imposed, levied, collected, withheld or assessed other than the mere benefit under the Guarantee; or
- (b) where the Instrument or Coupon is presented or surrendered for payment more than 30 days after the Relevant Date, except to the extent that the relevant Holder would have been entitled to additional amounts on presenting or surrendering the Instrument or Coupon for payment on the last day of the period of 30 days assuming that day to have been a day on which the Holder of such Instrument or Coupon is entitled to receive payment in accordance with Condition 9A.05 or, as the case may be, Condition 9B.02; or
- (c) to, or to a third party on behalf of, a Holder or another beneficiary of the Guarantee who is able to avoid such withholding or deduction by presenting any form or certificate and/or making a declaration of non-residence or other similar claim for exemption to the relevant tax authority, or to the extent that such Holder or beneficiary is able to credit or obtain a refund of such amount withheld or deducted from any tax authority; or
- (d) where any such taxes, duties, assessments or other governmental charges are imposed on a payment in respect of the Instruments required to be made pursuant to laws enacted by Switzerland providing for the taxation of payments according to principles similar to those laid down in the draft legislation of the Swiss Federal Council of 17 December 2014 altering the debtor-based Swiss federal withholding tax system to a paying-agent system where a person other than an Issuer has to withhold tax on any interest payments or securing of interest payments; or
- (e) where taxes, withholdings, or deductions are imposed in respect of Sections 1471 through 1474 of the United States Internal Revenue Code of 1986, as amended (the "**Code**"), the regulations thereunder, official interpretations thereof, agreements entered into pursuant to section 1471(b) of the Code, and certain fiscal or regulatory legislation, rules or practices

adopted pursuant to intergovernmental agreements entered into in connection with the implementation of such sections of the Code; or

- (f) where the Instrument or Coupon is presented for payment by or on behalf of a Holder who would have been able to avoid such withholding or deduction (i) by presenting the Instrument or Coupon to another paying agent, or (ii) by authorizing the paying agent to report information in accordance with the procedure laid down by the relevant tax authority or by producing, in the form required by the relevant tax authority, a declaration, claim, certificate, document or other evidence establishing exemption therefrom; or
- (g) in respect of any estate, inheritance, gift, sales, transfer, wealth or personal property tax or any similar tax, duty, assessment or governmental charge; or
- (h) in respect of any Taxes that are payable otherwise than by withholding or deduction by the Guarantor, or by a Paying Agent, from the payment of the amount payable in respect of the Guarantee; or
- (i) in respect of any combination of taxes, duties, assessments or other governmental charges referred to in the preceding clauses (a), (b), (c), (d), (e), (f), (g) or (h).

6. Exercise of Rights, Subrogation and Claims against the Issuers

Until all principal, premium (if any) and interest and all other monies payable by an Issuer in respect of its Instruments shall be paid in full, (i) no right of the Guarantor, by reason of the performance of any of its obligations under this Guarantee, to be indemnified by such Issuer or to take the benefit of or enforce any security or other guarantee or indemnity against such Issuer in connection with its Instruments shall be exercised or enforced and (ii) the Guarantor shall not (a) by virtue of this Guarantee or any other reason be subrogated to any rights of any Holder or (b) claim in competition with the Holders against such Issuer.

If the Guarantor receives any benefit, payment or distribution in relation to such rights it shall hold that benefit, payment or distribution to the extent necessary to enable all amounts which may be or become payable to the Holders by an Issuer under or in connection with its Instruments to be paid in full on behalf and for the benefit of the Holders and shall promptly pay or transfer the same to the Holders as they may direct to the extent such amount shall be due and unpaid by such Issuer to the Holders.

7. Notices

Each notice or demand under the Guarantee shall be made in writing, in English, and may be sent by messenger, fax or pre-paid first class post to the Guarantor at the address, and for the attention of the person, from time to time designated by the Guarantor for the purposes of the Guarantee. Any such notice or demand shall be effective when actually received by such addressee. The address, attention and telefax number of the Guarantor for notices or demands under the Guarantee for the time being are as follows:

ABB Ltd
Affolternstrasse 44
8050 Zurich
Switzerland
Fax: +41 43 317 79 92
Attention: Legal Department

8. Assignment

The Guarantor shall not be entitled to assign or transfer any or all of its rights, benefits or obligations under this Guarantee.

9. Severability

If a provision of this Guarantee is or becomes illegal, invalid or unenforceable in any jurisdiction, that shall not affect the validity or enforceability in that jurisdiction or in any other jurisdiction of any other provision of this Guarantee.

10. Subsequent Guarantees

Any Instruments issued by an Issuer under the Programme on or after the date of this Guarantee shall have the benefit of this Guarantee, but shall not have the benefit of any subsequent guarantee relating to the Programme, unless expressly so provided in any such subsequent guarantee.

11. Governing Law and Jurisdiction

This Guarantee shall be governed by and construed in accordance with the substantive laws of Switzerland.

All disputes arising out of or in connection with this Guarantee shall be resolved exclusively by the courts of the Canton of Zurich, venue being Zurich 1.

Guarantor:

ABB Ltd

By:
Name: Timo J. Ihamuotila
Function: Chief Financial Officer

By:
Name: Diane de Saint Victor
Function: General Counsel

INDEX OF DEFINED TERMS

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