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Date: January 31, 2020
Witness(es): Various

PACIFIC GAS AND ELECTRIC COMPANY
PLAN OF REORGANIZATION OII 2019
PREPARED TESTIMONY
VOLUME 4



PACIFIC GAS AND ELECTRIC COMPANY
PLAN OF REORGANIZATION OII 2019
PREPARED TESTIMONY

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INDENTURE

Dated as of November 29, 2017

between

**PACIFIC GAS AND ELECTRIC COMPANY,
Issuer**

and

**THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.,
Trustee**

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Exhibit 1 — Form of Bonds

INDENTURE (this “**Indenture**”), dated as of November 29, 2017 between **PACIFIC GAS AND ELECTRIC COMPANY**, a corporation duly organized and existing under the laws of the State of California (the “**Company**”), and **THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.**, a national banking association organized under the laws of the United States of America, as Trustee (the “**Trustee**”).

Each party agrees as follows for the benefit of the other party and for the equal and ratable benefit of the Holders of the Company’s Bonds to be issued, from time to time, as provided by this Indenture:

ARTICLE I

DEFINITIONS AND OTHER PROVISIONS OF GENERAL APPLICATION

SECTION 1.01. General Definitions.

For all purposes of this Indenture, except as otherwise expressly provided or unless the context otherwise requires:

- (a) the terms defined in this Article have the meanings assigned to them in this Article and include the plural as well as the singular;
- (b) reference to any gender shall include all other genders;
- (c) all terms used herein without definition which are defined in the Trust Indenture Act, either directly or by reference therein, have the meanings assigned to them therein;
- (d) all terms used herein without definition which are defined in the California Commercial Code shall have the meanings assigned to them therein;
- (e) all accounting terms not otherwise defined herein have the meanings assigned to them in accordance with generally accepted accounting principles in the United States; and, except as otherwise herein expressly provided, the term “generally accepted accounting principles” with respect to any computation required or permitted hereunder shall mean, at the election of the Company from time to time, such accounting principles as are generally accepted in the United States at the date of such computation or at March 23, 2004; provided, however, that in determining generally accepted accounting principles applicable to the Company, effect shall be given, to the extent required, to any order, rule or regulation of any administrative agency, regulatory authority or other governmental body having jurisdiction over the Company;
- (f) any reference to an “Article”, a “Section” or any other subdivision refers to an Article, a Section or other subdivision, as the case may be, of this Indenture;
- (g) the words “herein”, “hereof” and “hereunder” and other words of similar import refer to this Indenture as a whole and not to any particular Article, Section or other subdivision; and

(h) all references to any amount of “interest” or any other amount payable on or with respect to any of the Bonds shall be deemed to include payment of any Additional Interest pursuant to a Registration Rights Agreement, if applicable.

“2018 Notes” means the Initial 2018 Notes, any Exchange Bonds issued in exchange therefor and any Additional 2018 Notes, treated as a single class of securities.

“2027 Notes” means the Initial 2027 Notes, any Exchange Bonds issued in exchange therefor and any Additional 2027 Notes, treated as a single class of securities.

“2047 Notes” means the Initial 2047 Notes, any Exchange Bonds issued in exchange therefor and any Additional 2047 Notes, treated as a single class of securities.

“Accountant” means a Person engaged in the accounting profession or otherwise qualified to pass on accounting matters (including, but not limited to, a Person certified or licensed as a public accountant, whether or not then engaged in the public accounting profession), which Person, unless required under the terms hereof to be Independent, may be an employee, an Affiliate or an employee of an Affiliate of the Company.

“Act”, when used with respect to any Holder of a Bond, has the meaning specified in Section 1.04.

“Additional Interest” shall mean the additional interest then owing pursuant to a Registration Rights Agreement.

“Additional 2018 Notes” means Additional Bonds issued pursuant to Section 3.14 having identical terms as the Initial 2018 Notes, other than as permitted by Section 3.14.

“Additional 2027 Notes” means Additional Bonds issued pursuant to Section 3.14 having identical terms as the Initial 2027 Notes, other than as permitted by Section 3.14.

“Additional 2047 Notes” means Additional Bonds issued pursuant to Section 3.14 having identical terms as the Initial 2047 Notes, other than as permitted by Section 3.14.

“Additional Bonds” means Bonds issued under this Indenture after the Issue Date and in compliance with Section 3.14, it being understood that any Bonds issued in exchange for or replacement of any Initial Bond issued on the Issue Date shall not be an Additional Bond, including any such Bonds issued pursuant to a Registration Rights Agreement.

“Adjusted Treasury Rate”, with respect to the Fixed Rate Senior Notes, means, with respect to any Redemption Date on which any Fixed Rate Senior Notes are being redeemed pursuant to the redemption terms of a Bond, the rate per annum equal to the semiannual equivalent yield to maturity of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such Redemption Date.

“Affiliate” of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For the

purposes of this definition, “control” when used with respect to any specified Person means the power to direct generally the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms “controlling” and “controlled” have meanings correlative to the foregoing.

“Attributable Debt” in respect of a sale and leaseback transaction means, at the time of determination, the present value of the obligation of the lessee for net rental payments during the remaining term of the lease included in such sale and leaseback transaction, including any period for which such lease has been extended or may, at the option of the lessor, be extended. Such present value shall be calculated using a discount rate equal to the rate of interest implicit in such transaction, determined in accordance with generally accepted accounting principles.

“Authenticating Agent” means any Person or Persons (other than the Company or an Affiliate of the Company) authorized by the Trustee to act on behalf of the Trustee to authenticate the Bonds of one or more series.

“Authorized Officer” means the Chairman of the Board, the President, the Chief Executive Officer, any Vice President or Assistant Vice President, the Chief Financial Officer, the Treasurer or Assistant Treasurer or any other person duly authorized by the Board of Directors to act as an Authorized Officer.

“Board of Directors” means the board of directors of the Company, any committee thereof duly authorized to act in respect of matters relating to this Indenture or any other body fulfilling the function of a board of directors of a corporation authorized to act in respect of matters relating to this Indenture.

“Board Resolution” means a copy of a resolution certified by the Secretary or an Assistant Secretary of the Company that has been duly adopted by the Board of Directors, that is in full force and effect on the date of such certification and that has been delivered to the Trustee.

“Bond Register” and **“Bond Registrar”** have the respective meanings specified in Section 3.05.

“Bonds” means the Fixed Rate Senior Notes and the Floating Rate Senior Notes.

“Business Day” means (i) with respect to the Fixed Rate Senior Notes, any day that is not a day on which banking institutions in New York City are authorized or required by law or regulation to close and (ii) with respect to the Floating Rate Senior Notes, any day (1) that is not a Saturday or Sunday and that is not a day on which banking institutions are authorized or obligated by law or executive order to close in the City of New York and, for any place of payment outside of the City of New York, in such place of payment, and (2) that is also a “London business day”, which is a day on which dealings in deposits in U.S. dollars are transacted in the London interbank market.

“Calculation Agent”, with respect to the Floating Rate Senior Notes, means The Bank of New York Mellon Trust Company, N.A., or such other Person as the Company shall from time to time designate.

“California Commercial Code” means the California Commercial Code as in effect from time to time, unless otherwise specified in this Indenture.

“Capital Lease Obligation” means, at the time any determination is to be made, the amount of the liability in respect of a capital lease that would at that time be required to be capitalized on a balance sheet in accordance with generally accepted accounting principles.

“Code” means the United States Internal Revenue Code of 1986, as amended.

“Commission” means the Securities and Exchange Commission, as from time to time constituted, created under the Exchange Act or, if at any time after the Issue Date, such Commission is not existing and performing the duties assigned to it on the Issue Date under the Trust Indenture Act, then the body, if any, performing such duties at such time.

“Company” means the Person named as the “Company” in the first paragraph of this Indenture until a successor Person shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “Company” shall mean such successor Person.

“Company Order” or **“Company Request”** means, respectively, a written order or request signed in the name of the Company by an Authorized Officer and delivered to the Trustee.

“Comparable Treasury Issue”, with respect to a given series of Bonds, has the meaning given to it in such Bond.

“Comparable Treasury Price”, with respect to the Fixed Rate Senior Notes, means, with respect to any Redemption Date on which any series of Fixed Rate Senior Notes is being redeemed pursuant to the redemption terms of a Bond, (a) the average of the Reference Treasury Dealer Quotations for such Redemption Date, after excluding the highest and lowest of the Reference Treasury Dealer Quotations; or (b) if the Company obtains fewer than four Reference Treasury Dealer Quotations, the average of all Reference Treasury Dealer Quotations so received.

“Corporate Trust Office” means the principal office of the Trustee at which at any time its corporate trust business shall be administered, which office on the Issue Date is located at The Bank of New York Mellon Trust Company, N.A., 400 South Hope Street, Suite 500, Los Angeles, CA 90071, Attention: Global Corporate Trust Unit, or such other address as the Trustee may designate from time to time by notice to the Holders and the Company.

“corporation” means a corporation, partnership, limited liability company, association, company, joint stock company or business trust, and references to “corporate” and other derivations of “corporation” herein shall be deemed to include appropriate derivations of such entities.

“CPI Index” means the United States Department of Labor, Bureau of Labor Statistics Consumer Price Index for All Urban Consumers, U.S. City Average, “All Items” (1982-84 = 100), or any successor index thereof as such successor index may be appropriately adjusted to establish substantial equivalence with the Consumer Price Index; provided that if the Consumer

Price Index ceases to be published and there is no successor thereto, such other index shall be substituted by the Company for the Consumer Price Index.

“Debt” means any debt of the Company for money borrowed and guarantees by the Company of debt for money borrowed but in each case excluding liabilities in respect of Capital Lease Obligations or Swap Agreements.

“Default” means any event that with the passage of time or the giving of notice or both would be an Event of Default.

“Defaulted Interest” has the meaning specified in Section 3.07.

“Depositary” means, with respect to the Bonds of any series issuable or issued in whole or in part in the form of one or more Global Bonds, the Person designated as Depositary by the Company pursuant to Section 3.13 until a successor Depositary shall have become such pursuant to the applicable provisions of this Indenture, and, thereafter, “Depositary” shall mean or include each Person who is then a Depositary hereunder, and if at any time there is more than one such Person, “Depositary” as used with respect to Bonds of any such series shall mean the Depositary with respect to the Bonds of that series.

“Diablo Canyon Lease” means that certain lease dated September 17, 1966, between Eureka Energy Company, as lessor, and the Company, as lessee, which lease was originally entered into between Luigi Marre Land and Cattle Company, a California corporation, as lessor, and San Luis Obispo Bay Properties, Inc., a California corporation, as lessee, a memorandum of which Lease was recorded September 21, 1966 in Volume 1410, Page 556, Official Records, San Luis Obispo County, California, and any supplements, assignments and modifications thereto.

“Dollar” or **“\$”** means a dollar or other equivalent unit in such coin or currency of the United States as at the time shall be legal tender for the payment of public and private debts.

“DTC” means The Depository Trust Company, New York, New York.

“Eligible Obligations” means Government Obligations.

“Event of Default” has the meaning specified in Section 9.01.

“Excepted Property” means any right, title or interest of the Company or any Significant Subsidiary in, to or under any of the following property, whether owned at the Issue Date or thereafter acquired:

(a) all money, investment property and deposit accounts (as such terms are defined in the California Commercial Code as in effect on March 11, 2004), and all cash on hand or on deposit in banks or other financial institutions, shares of stock, interests in general or limited partnerships or limited liability companies, bonds, notes, other evidences of indebtedness and other securities, of whatever kind and nature;

(b) all accounts, chattel paper, commercial tort claims, documents, general intangibles, instruments, letter-of-credit rights and letters of credit (as such terms are defined in the

California Commercial Code as in effect on March 11, 2004), other than licenses and permits to use the real property of others, franchises to use public roads, streets and other public properties, rights of way and other rights or interests relating to the occupancy or use of real property; and all contracts, leases (except the Diablo Canyon Lease), operating agreements and other agreements of whatever kind and nature; all contract rights, bills and notes (except to the extent that any of the same constitute investment property, in which case they are separately covered under clause (a) above); all revenues, income and earnings, all accounts receivable, rights to payment and unbilled revenues, all rents, tolls, issues, products and profits, claims, credits, demands and judgments, including any rights in or to rates, revenue components, charges, tariffs or amounts arising therefrom, or in any amounts that are accrued and recorded in a regulatory account for collections by the Company or any Significant Subsidiary; all governmental and other licenses, permits, franchises, consents and allowances, including all emission allowances (or similar rights) created under any similar existing or future law relating to abatement or control of pollution of the atmosphere, water or soil, other than licenses and permits to use the real property of others, franchises to use public roads, streets and other public properties, rights of way and other rights or interests relating to the occupancy or use of real property; and all patents, patent licenses and other patent rights, patent applications, trade names, trademarks, copyrights and other intellectual property, including computer software and software licenses; and all claims, credits, choses in action and other intangible property;

(c) all automobiles, buses, trucks, truck cranes, tractors, trailers, motor vehicles and similar vehicles and movable equipment; all rolling stock, rail cars and other railroad equipment; all vessels, boats, barges and other marine equipment; all airplanes, helicopters, aircraft engines and other flight equipment; and all parts, accessories and supplies used in connection with any of the foregoing;

(d) all goods, stock in trade, wares, merchandise and inventory held for the purpose of sale or lease in the ordinary course of business; all materials, supplies, inventory and other items of personal property which are consumable (otherwise than by ordinary wear and tear) in their use in the operation of the Principal Property; all fuel, whether or not any such fuel is in a form consumable in the operation of the Principal Property, including separate components of any fuel in the forms in which such components exist at any time before, during or after the period of the use thereof as fuel; all hand and other portable tools and equipment; and all furniture and furnishings;

(e) all personal property the perfection of a security interest in which is not governed by the California Commercial Code;

(f) all oil, gas and other minerals (as such terms are defined in the California Commercial Code as in effect on March 11, 2004); and all coal, ore, gas, oil and other minerals and all timber, and all rights and interests in any of the foregoing, whether or not such minerals or timber shall have been mined or extracted or otherwise separated from the land; and all electric energy and capacity, gas (natural or artificial), steam, water and other products generated, produced, manufactured, purchased or otherwise acquired by the Company or any Significant Subsidiary;

(g) all property which is the subject of a lease agreement, other than a lease agreement that results from a sale and leaseback transaction, designating the Company or any Significant

Subsidiary as lessee and all right, title and interest of the Company or any Significant Subsidiary in and to such property and in, to and under such lease agreement, whether or not such lease agreement is intended as security; provided, however, that the Company's right, title and interest in and to the property which is the subject of the Diablo Canyon Lease, and in to and under the Diablo Canyon Lease shall not be Excepted Property;

(h) all property, real, personal and mixed that is stated in Sections 12.03 and 12.05 to not be Principal Property; and

(i) all proceeds (as such term is defined in the California Commercial Code as in effect on March 11, 2004) of the foregoing.

"Exchange Act" means the Securities Exchange Act of 1934, as amended.

"Exchange Bonds" means (1) the senior notes issued pursuant to the Indenture in connection with a Registered Exchange Offer pursuant to a Registration Rights Agreement in exchange for, and having terms substantially identical to, Initial Bonds of the same series and (2) Additional Bonds, if any, issued pursuant to a registration statement filed with the Commission under the Securities Act.

"Fair Value", with respect to property, means the fair value of such property as may be determined by reference to (a) the amount which would be likely to be obtained in an arm's-length transaction with respect to such property between an informed and willing buyer and an informed and willing seller, under no compulsion, respectively, to buy or sell, (b) the amount of investment with respect to such property which, together with a reasonable return thereon, would be likely to be recovered through ordinary business operations or otherwise, (c) cost or replacement or reproduction cost, in each case less depreciation with respect to such property and/or (d) any other relevant factors; provided, however, that the Fair Value of property shall be determined without deduction for any senior liens on such property. Fair Value of any property may be determined, without physical inspection, by the use of accounting and engineering records and other data maintained by the Company (including on the basis of the cost of such property).

"Fixed Rate Senior Notes" means, collectively, the 2027 Notes and the 2047 Notes.

"Floating Rate Senior Notes" means the 2018 Notes.

"Global Bond" means a Bond representing all or part of a series of Bonds issued to the Depositary for such series in accordance with Section 3.13, and bearing the legend prescribed in Section 3.13 and the Appendix.

"Governmental Authority" means the government of the United States or of any state or territory thereof or of the District of Columbia or of any county, municipality or other political subdivision of any thereof, or any department, agency, authority or other instrumentality of any of the foregoing.

"Government Obligations" means securities which are (a) (i) direct obligations of the United States where the payment or payments thereunder are supported by the full faith and credit of the

United States or (ii) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the United States where the timely payment or payments thereunder are unconditionally guaranteed as a full faith and credit obligation by the United States or (b) depository receipts issued by a bank (as defined in Section 3(a)(2) of the Securities Act of 1933, as amended) as custodian with respect to any such Government Obligation or a specific payment of interest on or principal of or other amount with respect to any such Government Obligation held by such custodian for the account of the holder of a depository receipt; provided, that, (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depository receipt from any amount received by the custodian in respect of the Government Obligation or the specific payment of interest on or principal of or other amount with respect to the Government Obligation evidenced by such depository receipt.

“Holder” means a Person in whose name a Bond is registered in the Bond Register.

“Indenture” means this instrument as originally executed and as it may from time to time be supplemented or amended by one or more indentures supplemental hereto entered into pursuant to the applicable provisions hereof, including, for all purposes of this instrument and any such supplemental indenture, the provisions of the Trust Indenture Act that are deemed to be a part of and govern this Indenture and any such supplemental indenture, respectively.

“Independent”, when applied to any Accountant or other specified Person, means such a Person who (a) does not have any direct or indirect material financial interest in the Company or in any other obligor upon the Bonds or in any Affiliate of the Company or of such other obligor, (b) is not connected with the Company, an Affiliate of the Company or such other obligor as an officer, employee, promoter, underwriter, trustee, partner, director or any person performing similar functions and (c) is appointed or selected by the Company.

“Initial 2018 Notes” means the \$500,000,000 in aggregate principal amount of the Company’s Floating Rate Notes due 2018 issued under the Indenture on the Issue Date and that contains the Restricted Global Bond legend.

“Initial 2027 Notes” means the \$1,150,000,000 in aggregate principal amount of the Company’s 3.30% Senior Notes due 2027 issued under the Indenture on the Issue Date and that contains the Restricted Global Bond legend.

“Initial 2047 Notes” means the \$850,000,000 in aggregate principal amount of the Company’s 3.95% Senior Notes due 2047 issued under the Indenture on the Issue Date and that contains the Restricted Global Bond legend.

“Initial Bonds” means (1) the Initial 2018 Notes, the Initial 2027 Notes and the Initial 2047 Notes and (2) Additional Bonds, if any, issued in a transaction exempt from the registration requirements of the Securities Act.

“Interest Payment Date”, when used with respect to any Bond, means the Stated Maturity of an installment of interest on such Bond.

“Internal Revenue Code” means the Internal Revenue Code of 1986, as amended, or any successor federal statute.

“Investment Securities” means any of the following obligations or investment property on which neither the Company, any other obligor on the Bonds nor any Affiliate of either is the obligor: (a) Government Obligations; (b) interest bearing deposit accounts (which may be represented by certificates of deposit) in any national or state bank (which may include the Trustee or any Paying Agent) or savings association which has outstanding securities rated by a nationally recognized rating organization in either of the two (2) highest rating categories (without regard to modifiers) for short-term securities or in any of the three (3) highest rating categories (without regard to modifiers) for long-term securities; (c) bankers’ acceptances drawn on and accepted by any commercial bank (which may include the Trustee or any Paying Agent) which has outstanding securities rated by a nationally recognized rating organization in either of the two (2) highest rating categories (without regard to modifiers) for short-term securities or in any of the three (3) highest rating categories (without regard to modifiers) for long-term securities; (d) direct obligations of, or obligations the principal of and interest on which are unconditionally guaranteed by, any state or territory of the United States or the District of Columbia, or any political subdivision of any of the foregoing, which are rated by a nationally recognized rating organization in either of the two (2) highest rating categories (without regard to modifiers) for short-term securities or in any of the three (3) highest rating categories (without regard to modifiers) for long-term securities; (e) bonds or other obligations of any agency or instrumentality of the United States; (f) corporate debt securities which are rated by a nationally recognized rating organization in either of the two (2) highest rating categories (without regard to modifiers) for short-term securities or in any of the three (3) highest rating categories (without regard to modifiers) for long-term securities; (g) repurchase agreements with respect to any of the foregoing obligations or securities with any banking or financial institution (which may include the Trustee or any Paying Agent) which has outstanding securities rated by a nationally recognized rating organization in either of the two (2) highest rating categories (without regard to modifiers) for short-term securities or in any of the three (3) highest rating categories (without regard to modifiers) for long-term securities; (h) securities issued by any regulated investment company (including any investment company for which the Trustee or any Paying Agent is the advisor), as defined in Section 851 of the Internal Revenue Code or any such successor section of the Internal Revenue Code, provided that the portfolio of such investment company is limited to obligations or securities of the character and investment quality contemplated in clauses (a) through (f) above and repurchase agreements which are fully collateralized by any of such obligations or securities; and (i) any other obligations or securities which may lawfully be purchased by the Company.

“Issue Date” means November 29, 2017.

“Lien” means any mortgage, deed of trust, pledge, security interest, encumbrance, easement, lease, reservation, restriction, servitude, charge or similar right and any other lien of any kind, including, without limitation, any conditional sale or other title retention agreement, any lease in the nature thereof, and any defect, irregularity, exception or limitation in record title or, when the context so requires, any lien, claim or interest arising from any of the foregoing.

“Maturity”, when used with respect to any Bond, means the date on which the principal of such Bond becomes due and payable as provided in such Bond or in this Indenture, whether at the Stated Maturity, by declaration of acceleration, upon call for redemption or otherwise.

“Net Tangible Assets” means the total amount of the Company’s assets determined on a consolidated basis in accordance with generally accepted accounting principles as of a date determined pursuant to Section 7.07(b), *less* (a) the sum of the Company’s consolidated current liabilities determined in accordance with generally accepted accounting principles, and (b) the amount of the Company’s consolidated assets classified as intangible assets, determined in accordance with generally accepted accounting principles, including, but not limited to, such items as goodwill, trademarks, trade names, patents, and unamortized debt discount and expense and regulatory assets carried as an asset on the Company’s consolidated balance sheet.

“Notice of Default” has the meaning specified in Section 9.01(c).

“Officer’s Certificate” means a certificate signed by an Authorized Officer and delivered to the Trustee.

“Opinion of Counsel” means a written opinion of counsel, who may be counsel for the Company or other counsel acceptable to the Trustee and who may be an employee, an Affiliate or an employee of an Affiliate of the Company.

“Outstanding”, when used with respect to Bonds, means, as of the date of determination, all Bonds theretofore authenticated and delivered under this Indenture, except:

(a) Bonds theretofore canceled or delivered to the Bond Registrar or the Trustee for cancellation;

(b) Bonds deemed to have been paid for all purposes of this Indenture in accordance with Section 8.01 (whether or not the Company’s indebtedness in respect thereof shall be satisfied and discharged for any other purpose); and

(c) Bonds, the principal of, premium, if any, and interest, if any, on which have been fully paid pursuant to the third paragraph of Section 3.06 or in exchange for or in lieu of which other Bonds have been authenticated and delivered pursuant to this Indenture, other than any such Bonds in respect of which there shall have been presented to the Trustee proof satisfactory to it and the Company that such Bonds are held by a protected purchaser;

provided, however, that in determining whether or not the Holders of the requisite principal amount of the Bonds Outstanding under this Indenture, or the Outstanding Bonds of any series, have given any request, demand, authorization, direction, notice, consent or waiver hereunder or whether or not a quorum is present at a meeting of Holders of Bonds,

(x) Bonds owned by the Company or any other obligor upon the Bonds or any Affiliate of the Company or of such other obligor (unless the Company, such obligor and/or such Affiliate owns all Bonds Outstanding under this Indenture, or all Outstanding Bonds of each such series, determined without regard to this clause (x)) shall be disregarded and deemed not to be Outstanding, except that, in determining whether the Trustee shall be protected in relying upon any such request, demand, authorization, direction, notice, consent or waiver or upon any such

determination as to the presence of a quorum, only Bonds which the Trustee actually knows to be so owned shall be so disregarded; provided, however, that Bonds so owned which have been pledged in good faith may be regarded as Outstanding if it is established to the reasonable satisfaction of the Trustee that the pledgee, and not the Company, any such other obligor or Affiliate of either thereof, has the right so to act with respect to such Bonds and that the pledgee is not the Company or any other obligor upon the Bonds or any Affiliate of the Company or of such other obligor; and provided, further, that in no event shall any Bond which shall have been delivered to evidence, enhance or secure, in whole or in part, the Company's obligations in respect of other indebtedness be deemed to be owned by the Company if the principal of such Bond is payable, whether at Stated Maturity or upon mandatory redemption, at the same time as the principal of such other indebtedness is payable, whether at Stated Maturity or upon mandatory redemption or acceleration, but only to the extent of such portion of the principal amount of such Bond as does not exceed the principal amount of such other indebtedness; and

(y) [Reserved].

“Paying Agent” means any Person, including the Company, authorized by the Company to pay the principal of and premium, if any, or interest, if any, on any Bonds on behalf of the Company.

“Person” means any individual, corporation, limited liability partnership, joint venture, trust or unincorporated organization, or any other entity, whether or not a legal entity, or any Governmental Authority.

“Place of Payment”, when used with respect to Bonds of any series, means the place or places, specified therein at which the principal of and premium, if any, and interest, if any, on the Bonds of such series are payable, subject, in either case, to Section 7.02.

“Predecessor Bond” of any particular Bond means every previous Bond evidencing all or a portion of the same debt as that evidenced by such particular Bond; and, for the purposes of this definition, any Bond authenticated and delivered under Section 3.06 in exchange for or in lieu of a mutilated, destroyed, lost or stolen Bond shall be deemed (to the extent lawful) to evidence the same debt as the mutilated, destroyed, lost or stolen Bond.

“Primary Treasury Dealer” means a primary dealer in U.S. Government Securities.

“Principal Property” means any property of the Company or any Significant Subsidiary, as applicable, other than Excepted Property.

“QIB” means a “qualified institutional buyer” as defined in Rule 144A under the Securities Act.

“Quotation Agent” means, with respect to a given series of Bonds, the Reference Treasury Dealer appointed by the Company in respect of such series.

“Redemption Date”, when used with respect to any Bond to be redeemed, means the date fixed for such redemption by or pursuant to this Indenture.

“Redemption Price”, when used with respect to any Bond to be redeemed, means the price at which it is to be redeemed pursuant to this Indenture which price shall include principal of and

premium, if any, payable on such Bond but shall not include any accrued interest payable with respect to such Bond.

“Reference Treasury Dealer”, with respect to the Fixed Rate Senior Notes, means (1) each of Barclays Capital Inc., Citigroup Global Markets Inc., J.P. Morgan Securities LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated and Morgan Stanley & Co. LLC and their respective successors, unless any of them ceases to be a Primary Treasury Dealer, in which case the Company shall substitute another Primary Treasury Dealer; and (2) any other Primary Treasury Dealer selected by the Company.

“Reference Treasury Dealer Quotations”, with respect to the Fixed Rate Senior Notes and with respect to each Reference Treasury Dealer and any Redemption Date related to Fixed Rate Senior Notes, means, the average, as determined by the Company, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Company by that Reference Treasury Dealer at 5:00 p.m., New York City time, on the third Business Day preceding such Redemption Date.

“Registered Exchange Offer” means the offer by the Company, pursuant to a Registration Rights Agreement, to certain Holders of Initial Bonds, to issue and deliver to such Holders, in exchange for the Initial Bonds, a like aggregate principal amount of Exchange Bonds of the same series registered under the Securities Act.

“Registration Rights Agreement” means (1) with respect to the Initial Bonds, the Registration Rights Agreement dated as of the Issue Date, among the Company and Barclays Capital Inc., Citigroup Global Markets Inc., J.P. Morgan Securities LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated and Morgan Stanley & Co. LLC, as representatives of the initial purchasers listed therein and (2) with respect to each issuance of Additional Bonds issued in a transaction exempt from the registration requirements of the Securities Act, the registration rights agreement, if any, among the Company and the Persons purchasing such Additional Bonds under the related Purchase Agreement.

“Regular Record Date” for the interest payable on any Interest Payment Date on the Bonds of any series means the date specified for that purpose.

“Remaining Scheduled Payments” means, with respect to each Fixed Rate Senior Note that the Company is redeeming pursuant to the redemption terms of a Bond, the remaining scheduled payments of principal and interest that would be due after the applicable Redemption Date if such Fixed Rate Senior Note were not redeemed. However, if the Redemption Date is not a scheduled Interest Payment Date with respect to that Fixed Rate Senior Note, the amount of the next succeeding scheduled interest payment on that Fixed Rate Senior Note will be reduced by the amount of interest accrued on such Fixed Rate Senior Note to the Redemption Date.

“Responsible Officer”, when used with respect to the Trustee, means any officer of the Trustee with direct responsibility for the administration of this Indenture and also means, with respect to a particular corporate trust matter, any other officer of the Trustee to whom such matter is referred because of such officer’s knowledge of and familiarity with the particular subject.

“Significant Subsidiary” shall have the meaning specified in Rule 1-02(w) of Regulation S-X under the Securities Act of 1933, as amended; provided that, Significant Subsidiary shall not include any Person, substantially all the assets of which are Excepted Property.

“Special Record Date” for the payment of any Defaulted Interest on the Bonds of any series means a date fixed by the Trustee pursuant to Section 3.07.

“Stated Interest Rate” means a rate (whether fixed or variable) at which an obligation by its terms is stated to bear simple interest. Any calculation or other determination to be made under this Indenture by reference to the Stated Interest Rate on an obligation shall be made (a) if the Company’s obligations in respect of any other indebtedness shall be evidenced, enhanced or secured in whole or in part by such obligation, by reference to the lower of the Stated Interest Rate on such obligation and the Stated Interest Rate on such other indebtedness and (b) without regard to the effective interest cost to the Company of such obligation or of any such other indebtedness.

“Stated Maturity”, when used with respect to any obligation (including any Bond of any series) or any installment of principal thereof or interest thereon, means the date on which the principal of such obligation or such installment of principal or interest is stated to be due and payable (without regard to any provisions for redemption, prepayment, acceleration, purchase or extension).

“Subsidiary” means (i) any corporation at least a majority of the outstanding voting stock or interest of which is owned, directly or indirectly, by the Company or by one or more Subsidiaries, or by the Company and one or more Subsidiaries or (ii) any other Person (other than a corporation) of which the Company and/or one or more Subsidiaries has at least a majority ownership and power to direct the policies, management and affairs. For the purposes of this definition, “voting stock” means stock having voting power for the election of directors, whether at all times or only so long as no senior class of stock has such voting power by reason of any contingency.

“Successor Corporation” has the meaning specified in Section 12.01.

“supplemental indenture” or **“indenture supplemental hereto”** means an instrument supplementing or amending this Indenture executed and delivered pursuant to Article XIII.

“Swap Agreement” means any agreement with respect to any swap, forward, future or derivative transaction or option or similar agreement involving, or settled by reference to, one or more rates, currencies, commodities, equity or debt instruments or securities, or economic, financial or pricing indices or measures of economic, financial or pricing risk or value or any similar transaction or any combination of these transactions.

“Trust Indenture Act” means, as of any time, the Trust Indenture Act of 1939 or any successor statute, as in effect at such time.

“Trustee” means the Person named as the “Trustee” in the first paragraph of this Indenture until a successor trustee shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “Trustee” shall mean the Person which shall have become a successor

trustee pursuant to the applicable provisions of this Indenture, and, if at any time there is more than one Person acting as trustee hereunder, “Trustee” shall mean each such Person so acting.

“**United States**” means the United States of America, its territories, its possessions and other areas subject to its political jurisdiction.

“**U.S. Government Securities**” means securities which are (a) direct obligations of the United States of America for the payment on which its full faith and credit is pledged or (b) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the United States of America the payment of which is unconditionally guaranteed as a full faith and credit obligation of the United States of America, and which in the case of (a) and (b) are not callable or redeemable at the option of the issuer thereof, and shall also include a depository receipt issued by a bank or trust company as custodian with respect to any such U.S. Government Security or a specific payment of interest on or principal of any such U.S. Government Security held by such custodian for the account of the holder of a depository receipt, provided that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depository receipt from any amount received by the custodian in respect of the U.S. Government Security evidenced by such depository receipt.

SECTION 1.02. Compliance Certificates and Opinions.

Except as otherwise expressly provided in this Indenture, upon any application or request by the Company to the Trustee to take any action under any provision of this Indenture, the Company shall furnish to the Trustee an Officer’s Certificate stating that all conditions precedent, if any, provided for in this Indenture relating to the proposed action have been complied with and an Opinion of Counsel stating that in the opinion of such counsel all such conditions precedent, if any, have been complied with, it being understood that in the case of any such application or request as to which the furnishing of such documents is specifically required by any provision of this Indenture relating to such particular application or request, no additional certificate or opinion need be furnished.

Every certificate or opinion with respect to compliance with a condition or covenant provided for in this Indenture (other than the certificates provided pursuant to Section 7.06) shall include:

- (a) a statement that each Person signing such certificate or opinion has read such covenant or condition and the definitions herein relating thereto;
- (b) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based;
- (c) a statement that, in the opinion of each such Person, such Person has made such examination or investigation as is necessary to enable such Person to express an informed opinion as to whether or not such covenant or condition has been complied with; and
- (d) a statement as to whether, in the opinion of each such Person, such condition or covenant has been complied with.

SECTION 1.03. Content and Form of Documents Delivered to Trustee.

Any Officer's Certificate may be based (without further examination or investigation), insofar as it relates to or is dependent upon legal matters, upon an opinion of, or representations by, counsel, and, insofar as it relates to or is dependent upon matters which are subject to verification by Accountants, upon a certificate or opinion of, or representations by, an Accountant, unless, in any case, such officer has actual knowledge that the certificate or opinion or representations with respect to the matters upon which such Officer's Certificate may be based as aforesaid are erroneous.

Any certificate of an Accountant may be based (without further examination or investigation), insofar as it relates to or is dependent upon legal matters, upon an opinion of, or representations by, counsel, and insofar as it relates to or is dependent upon factual matters, information with respect to which is in the possession of the Company and which are not subject to verification by Accountants, upon a certificate of, or representations by, an officer or officers of the Company, unless such Accountant has actual knowledge that the certificate or opinion or representations with respect to the matters upon which his certificate or opinion may be based as aforesaid are erroneous.

Any Opinion of Counsel may be based (without further examination or investigation), insofar as it relates to or is dependent upon factual matters, information with respect to which is in the possession of the Company, upon a certificate of, or representations by, an officer or officers of the Company, and, insofar as it relates to or is dependent upon matters which are subject to verification by Accountants upon a certificate or opinion of, or representations by, an Accountant, unless such counsel has actual knowledge that the certificate or opinion or representations with respect to the matters upon which his opinion may be based as aforesaid are erroneous. In addition, any Opinion of Counsel may be based (without further examination or investigation), insofar as it relates to or is dependent upon matters covered in an Opinion of Counsel rendered by other counsel, upon such other Opinion of Counsel, unless such counsel has actual knowledge that the Opinion of Counsel rendered by such other counsel with respect to the matters upon which his Opinion of Counsel may be based as aforesaid are erroneous. If, in order to render any Opinion of Counsel provided for herein, the signer thereof shall deem it necessary that additional facts or matters be stated in any Officer's Certificate or certificate of an Accountant provided for herein, then such certificate may state all such additional facts or matters as the signer of such Opinion of Counsel may request.

In any case where several matters are required to be certified by, or covered by an opinion of, any specified Person, it is not necessary that all such matters be certified by, or covered by the opinion of, only one such Person, or that they be so certified or covered by only one document, but one such Person may certify or give an opinion with respect to some matters and one or more other such Persons as to other matters, and any such Person may certify or give an opinion as to such matters in one or several documents. Where any Person is required to make, give or execute two or more applications, requests, consents, certificates, statements, opinions or other instruments under this Indenture, they may, but need not, be consolidated and form one instrument.

Whenever, subsequent to the receipt by the Trustee of any Board Resolution, Officer's Certificate, Opinion of Counsel or other document or instrument, a clerical, typographical or other inadvertent or unintentional error or omission shall be discovered therein, a new document or instrument may be substituted therefor in corrected form with the same force and effect as if originally filed in the corrected form and, irrespective of the date or dates of the actual execution and/or delivery thereof, such substitute document or instrument shall be deemed to have been executed and/or delivered as of the date or dates required with respect to the document or instrument for which it is substituted. Anything in this Indenture to the contrary notwithstanding, if any such corrective document or instrument indicates that action has been taken by or at the request of the Company which could not have been taken had the original document or instrument not contained such error or omission, the action so taken shall not be invalidated or otherwise rendered ineffective but shall be and remain in full force and effect, except to the extent that such action was a result of willful misconduct or bad faith. Without limiting the generality of the foregoing, any Bonds issued under the authority of such defective document or instrument shall nevertheless be the valid obligations of the Company entitled to the benefit of this Indenture equally and ratably with all other Outstanding Bonds, except as aforesaid.

SECTION 1.04. Acts of Holders.

(a) Any request, demand, authorization, direction, notice, consent, election, waiver or other action provided by this Indenture to be made, given or taken by Holders may be embodied in and evidenced by one or more instruments of substantially similar tenor signed by such Holders in person or by an agent duly appointed in writing or, alternatively, may be embodied in and evidenced by the record of Holders voting in favor thereof, either in person or by proxies duly appointed in writing, at any meeting of Holders duly called and held in accordance with the provisions of Article XIV, or a combination of such instruments and any such record. Except as herein otherwise expressly provided, such action shall become effective when such instrument or instruments or record or both are delivered to the Trustee and, where it is hereby expressly required, to the Company. Such instrument or instruments and any such record (and the action embodied therein and evidenced thereby) are herein sometimes referred to as the "Act" of the Holders signing such instrument or instruments and so voting at any such meeting. Proof of execution of any such instrument or of a writing appointing any such agent, or of the holding by any Person of a Bond, shall be sufficient for any purpose of this Indenture and (subject to Section 10.01) conclusive in favor of the Trustee and the Company, if made in the manner provided in this Section. The record of any meeting of Holders shall be proved in the manner provided in Section 14.06.

(b) The fact and date of the execution by any Person of any such instrument or writing may be proved by the affidavit of a witness of such execution or by a certificate of a notary public or other officer authorized by law to take acknowledgments of deeds, certifying that the individual signing such instrument or writing acknowledged to him the execution thereof or may be proved in any other manner which the Trustee and the Company deem sufficient. Where such execution is by a signer acting in a capacity other than his individual capacity, such certificate or affidavit shall also constitute sufficient proof of his authority.

(c) The ownership, principal amount and serial numbers of Bonds held by any Person, and the date of holding the same, shall be proved by the Bond Register.

(d) Any request, demand, authorization, direction, notice, consent, election, waiver or other Act of a Holder shall bind every future Holder of the same Bond and the Holder of every Bond issued upon the registration of transfer thereof or in exchange therefor or in lieu thereof in respect of anything done, omitted or suffered to be done by the Trustee or the Company in reliance thereon, whether or not notation of such action is made upon such Bond.

(e) Until such time as written instruments shall have been delivered to the Trustee with respect to the requisite percentage of principal amount of Bonds for the action contemplated by such instruments, any such instrument executed and delivered by or on behalf of a Holder may be revoked with respect to any or all of such Bonds by written notice by such Holder or any subsequent Holder, proven in the manner in which such instrument was proven.

(f) Bonds of any series authenticated and delivered after any Act of Holders may, and shall if required by the Trustee, bear a notation in form approved by the Trustee as to any action taken by such Act of Holders. If the Company shall so determine, new Bonds of any series so modified as to conform, in the opinion of the Trustee and the Company, to such action may be prepared and executed by the Company and authenticated and delivered by the Trustee in exchange for Outstanding Bonds of such series.

(g) The Company may, at its option, by Company Order, fix in advance a record date for the determination of Holders entitled to give any request, demand, authorization, direction, notice, consent, waiver or other Act solicited by the Company, but the Company shall have no obligation to do so. In addition, the Trustee may, at its option, fix in advance a record date for the determination of Holders entitled to join in the giving or making of any Notice of Default, any declaration of acceleration referred to in Section 9.02, any request to institute proceedings referred to in Section 9.07 or any direction referred to in Section 9.12. If any such record date is fixed, such request, demand, authorization, direction, notice, consent, waiver or other Act, or such notice, declaration, request or direction, may be given before or after such record date, but only the Holders of record at the close of business on the record date shall be deemed to be Holders for the purposes of determining (i) whether Holders of the requisite proportion of the Outstanding Bonds have authorized or agreed or consented to such Act (and for that purpose the Outstanding Bonds shall be computed as of the record date) and/or (ii) which Holders may revoke any such Act (notwithstanding subsection (e) of this Section); and any such Act, given as aforesaid, shall be effective whether or not the Holders which authorized or agreed or consented to such Act remain Holders after such record date and whether or not the Bonds held by such Holders remain Outstanding after such record date.

SECTION 1.05. Notices, Etc. to Trustee and Company.

Except as otherwise provided herein, any request, demand, authorization, direction, notice, consent, election, waiver or Act of Holders or other document provided or permitted by this Indenture to be made or served upon, given or furnished to, or filed with, the Trustee by any Holder or by the Company, or the Company by the Trustee or by any Holder, shall be sufficient for every purpose hereunder (unless otherwise expressly provided herein) if the same shall be in writing and delivered personally to the addressee (which delivery, with respect to the Trustee, shall be made to its Corporate Trust Office and addressed to the attention of the Corporate Trust Administration), or transmitted by facsimile transmission or other direct written electronic means

to such telephone number or other electronic communications address as the parties hereto shall from time to time designate, or transmitted by registered or certified mail, return receipt requested, or overnight courier guaranteeing next day delivery, charges prepaid, to the applicable address set forth opposite such party's name below or to such other address as either party hereto may from time to time designate:

If to the Trustee, to:

The Bank of New York Mellon Trust Company, N.A.
400 South Hope Street, Suite 500
Los Angeles, CA 90071
Attention: Global Corporate Trust Unit
Tel: (213) 630-6175
Fax: (213) 630-6298

If to the Company, to:

Pacific Gas and Electric Company
77 Beale Street (street address)
P.O. Box 770000
San Francisco, California 94177
Attention: Treasurer and Assistant Treasurer
Fax: (415) 973-4343/267-7265

Any communication contemplated herein shall be deemed to have been made, given, furnished and filed if personally delivered, on the date of delivery, if transmitted by facsimile transmission or other direct written electronic means, on the date of transmission, and if transmitted by registered or certified mail or reputable overnight courier, on the date of receipt.

SECTION 1.06. Notice to Holders of Bonds; Waiver.

Except as otherwise expressly provided herein, where this Indenture provides for notice to Holders of any event, such notice shall be sufficiently given, and shall be deemed given, to Holders if in writing and mailed, first-class postage prepaid, to each Holder affected by such event, at the address of such Holder as it appears in the Bond Register, not later than the latest date, and not earlier than the earliest date, prescribed for the giving of such notice.

In case by reason of the suspension of regular mail service or by reason of any other cause it shall be impracticable to give such notice to Holders by mail, then such notification as shall be made with the approval of the Trustee shall constitute a sufficient notification for every purpose hereunder. In any case where notice to Holders is given by mail, neither the failure to mail such notice, nor any defect in any notice so mailed, to any particular Holder shall affect the sufficiency of such notice with respect to other Holders.

Any notice required by this Indenture may be waived in writing by the Person entitled to receive such notice, either before or after the event otherwise to be specified therein, and such waiver shall be the equivalent of such notice. Waivers of notice by Holders shall be filed with the

Trustee, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

SECTION 1.07. Conflict With Trust Indenture Act.

If any provision of this Indenture limits, qualifies or conflicts with another provision hereof which is required or deemed to be included in this Indenture by any provision of the Trust Indenture Act, the provision required or deemed to be included by the Trust Indenture Act shall control; and if any provision hereof otherwise conflicts with the Trust Indenture Act, or limits, qualifies or conflicts with the duties imposed by Section 318(c) of the Trust Indenture Act, the Trust Indenture Act, including the duties imposed by Section 318(c) of the Trust Indenture Act, shall control.

SECTION 1.08. Effect of Headings and Table of Contents.

The Article and Section headings in this Indenture and the Table of Contents are for convenience only and shall not affect the construction hereof.

SECTION 1.09. Successors and Assigns.

All covenants and agreements in this Indenture by the Company and the Trustee shall bind their respective successors and assigns, whether so expressed or not.

SECTION 1.10. Separability Clause.

In case any provision in this Indenture or the Bonds shall be held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

SECTION 1.11. Benefits of Indenture.

Nothing in this Indenture or the Bonds, express or implied, shall give to any Person, other than the parties hereto, their successors hereunder and the Holders, any benefit or any legal or equitable right, remedy or claim under this Indenture.

SECTION 1.12. Governing Law.

This Indenture and the Bonds shall be governed by, and construed and enforced in accordance with, the laws of the State of New York without regard to the principles of conflicts of laws thereunder, except to the extent that the Trust Indenture Act shall be applicable.

SECTION 1.13. Legal Holidays.

In any case where any Interest Payment Date, Redemption Date or Stated Maturity of any Bond shall not be a Business Day at any Place of Payment, then (except as otherwise provided in the Float Rate Senior Notes) payment of interest or principal and premium, if any, need not be made at such Place of Payment on such date, but may be made on the next succeeding Business Day at such Place of Payment with the same force and effect as if made on the Interest Payment Date or

Redemption Date, or at the Stated Maturity, and, if such payment is made or duly provided for on such Business Day, no interest shall accrue on the amount so payable for the period from and after such Interest Payment Date, Redemption Date or Stated Maturity, as the case may be, to such Business Day.

SECTION 1.14. Investment of Cash Held by Trustee.

Any cash held by the Trustee or any Paying Agent under any provision of this Indenture shall, except as otherwise provided in Article VIII, at the request of the Company evidenced by Company Order, be invested or reinvested in Investment Securities selected and designated by the Company (such Company Order to contain a representation to the effect that the securities designated therein constitute Investment Securities), and any interest on such Investment Securities shall be promptly paid over to the Company as received. Such Investment Securities shall be held subject to the same provisions hereof as the cash used to purchase the same, but upon a like request of the Company shall be sold, in whole or in designated part, and the proceeds of such sale shall be held subject to the same provisions hereof as the cash used to purchase the Investment Securities so sold. If such sale shall produce a net sum less than the cost of the Investment Securities so sold, the Company shall pay to the Trustee or any such Paying Agent, as the case may be, such amount in cash as, together with the net proceeds from such sale, shall equal the cost of the Investment Securities so sold, and if such sale shall produce a net sum greater than the cost of the Investment Securities so sold, the Trustee or any such Paying Agent, as the case may be, shall promptly pay over to the Company an amount in cash equal to such excess. In no event shall the Trustee be liable for any loss incurred in connection with the sale of any Investment Security pursuant to this Section. In the absence of a Company Order directing the Trustee to invest cash held by the Trustee hereunder, such funds shall remain uninvested. The Trustee shall not be accountable or liable for any losses resulting from the sale or depreciation in the market value of investments made pursuant to this Indenture and Company Orders.

SECTION 1.15. Electronic or Facsimile Communication.

The Trustee agrees to accept and act upon instructions or directions pursuant to this Indenture sent by the Company by unsecured e-mail, facsimile transmission or other similar unsecured electronic methods; provided, however, that (a) subsequent to such transmission of written instructions, the Company shall provide the originally executed instructions or directions to the Trustee in a timely manner, and (b) such originally executed instructions or directions shall be signed by an authorized representative of the Company providing such instructions or directions. If the Company elects to give the Trustee e-mail or facsimile instructions (or instructions by a similar electronic method) and the Trustee in its discretion elects to act upon such instructions, the Trustee's understanding of such instructions shall be deemed controlling. The Trustee shall not be liable for any losses, costs or expenses arising directly or indirectly from the Trustee's reliance upon and compliance with such instructions notwithstanding such instructions conflict or are inconsistent with a subsequent written instruction. The Company agrees to assume all risks arising out of the use of such electronic methods to submit instructions and directions to the Trustee, including without limitation the risk of the Trustee acting on unauthorized instructions, and the risk of interception and misuse by third parties.

SECTION 1.16. WAIVER OF JURY TRIAL.

EACH OF THE COMPANY AND THE TRUSTEE HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS INDENTURE, THE BONDS OR THE TRANSACTIONS CONTEMPLATED HEREBY.

SECTION 1.17. Qualification of Indenture.

The Company shall qualify this Indenture under the Trust Indenture Act in accordance with the terms and conditions of the Registration Rights Agreement dated as of the Issue Date. The Trustee shall be entitled to receive from the Company any such Officers' Certificates, Opinions of Counsel or other documentation as it may reasonably request in connection with any such qualification of this Indenture under the Trust Indenture Act.

ARTICLE II

[RESERVED.]

ARTICLE III

THE BONDS

SECTION 3.01. Amount Unlimited.

The aggregate principal amount of Bonds which may be authenticated and delivered under this Indenture is unlimited and the Company may issue an unlimited principal amount of Additional Bonds in accordance with Section 3.14 hereof.

SECTION 3.02. Form and Dating; Denominations.

Provisions relating to the Initial Bonds and the Exchange Bonds are set forth in the Rule 144A/Regulation S Appendix attached hereto (the "**Appendix**"), which is hereby incorporated in and expressly made a part of this Indenture. The Initial Bonds and the Exchange Bonds and the Trustee's certificate of authentication for such Bonds shall be substantially in the form of Exhibit 1 to the Appendix which is hereby incorporated in and expressly made a part of this Indenture.

The Bonds shall bear such legends as may be required by the Appendix and may have such other notations, legends or endorsements required by law, stock exchange rule, agreements to which the Company is subject, if any, or usage (provided that any such notation, legend or endorsement is in a form acceptable to the Company).

The Bonds of each series shall be issuable in denominations of One Hundred Thousand Dollars (\$100,000) and any integral multiple of One Thousand Dollars (\$1,000) thereafter.

SECTION 3.03. Execution, Dating, Certificate of Authentication.

The Bonds shall be executed on behalf of the Company by any two of the following: the President, the Chief Executive Officer, any Vice President, the Chief Financial Officer, the Treasurer or any Assistant Treasurer. The corporate seal of the Company may be affixed thereto or reproduced thereon and attested by the Company's Corporate Secretary or any other officer of the Company as permitted by the Company's bylaws. The signature of any or all of these officers on the Bonds may be manual or facsimile.

Bonds bearing the manual or facsimile signatures of individuals who were at the time of execution the President, the Chief Executive Officer, a Vice President, the Chief Financial Officer, the Treasurer or an Assistant Treasurer of the Company shall bind the Company, notwithstanding that such individuals or any of them have ceased to hold such offices prior to the authentication and delivery of such Bonds or did not hold such offices at the date of such Bonds.

Each Bond shall be dated the date of its authentication.

No Bond shall be entitled to any benefit under this Indenture or be valid or obligatory for any purpose unless there appears on such Bond a certificate of authentication substantially in the form provided for in Exhibit 1 executed by the Trustee or an Authenticating Agent by manual signature of an authorized officer thereof, and such certificate upon any Bond shall be conclusive evidence, and the only evidence, that such Bond has been duly authenticated and delivered hereunder and is entitled to the benefits of this Indenture. Notwithstanding the foregoing, if any Bond shall have been authenticated and delivered hereunder to the Company, or any Person acting on its behalf, but shall never have been issued and sold (or pledged) by the Company, and (a) the Company shall deliver such Bond to the Bond Registrar for cancellation or shall cancel such Bond and deliver evidence of such cancellation to the Trustee, in each case as provided in Section 3.09, and (b) the Company, at its election, shall deliver to the Trustee a written statement (which need not comply with Section 1.02 and need not be accompanied by an Officer's Certificate or an Opinion of Counsel) stating that such Bond has never been issued and sold (or pledged) by the Company, then, for all purposes of this Indenture, such Bond shall be deemed never to have been authenticated and delivered hereunder and shall never be entitled to the benefits hereof.

SECTION 3.04. Temporary Bonds.

Pending the preparation of definitive Bonds of any series, the Company may execute, and upon Company Order the Trustee shall authenticate and deliver, temporary Bonds which are printed, lithographed, typewritten, mimeographed, photocopied or otherwise produced, in any authorized denomination, substantially of the tenor of the definitive Bonds in lieu of which they are issued, with such appropriate insertions, omissions, substitutions and other variations as the officers executing such Bonds may determine, as evidenced by their execution of such Bonds.

After the preparation of definitive Bonds of such series, the temporary Bonds of such series shall be exchangeable, without charge to the Holder thereof, for definitive Bonds of such series upon surrender of such temporary Bonds at the office or agency of the Company maintained pursuant to Section 7.02 in a Place of Payment for such Bonds. Upon such surrender of temporary Bonds,

the Company shall, in accordance with the procedures set forth in the Appendix, execute and the Trustee shall authenticate and deliver in exchange therefor definitive Bonds of the same series, of authorized denominations and of like tenor and aggregate principal amount.

Until exchanged in full as hereinabove provided, temporary Bonds shall in all respects be entitled to the same benefits under this Indenture as definitive Bonds of the same series and of like tenor authenticated and delivered hereunder.

SECTION 3.05. Registration, Registration of Transfer and Exchange.

The Company shall cause to be kept in one of the offices designated pursuant to Section 7.02, with respect to the Bonds of each series, a register (the “Bond Register”) in which, subject to such reasonable regulations as it may prescribe, the Company shall provide for the registration of Bonds of such series and the registration of transfer thereof. The Company shall designate one Person to maintain the Bond Register for the Bonds of each series, and such Person is referred to herein, with respect to such series, as the “Bond Registrar”. Anything herein to the contrary notwithstanding, the Company may designate one or more of its offices as an office in which a Bond Register with respect to the Bonds of one or more series shall be maintained, and the Company may designate itself the Bond Registrar with respect to one or more of such series. The Bond Register(s) shall be open for inspection by the Trustee and the Company at all reasonable times.

The Trustee is hereby appointed as initial Paying Agent and initial Bond Registrar for the Bonds. The Place of Payment of the Bonds shall be the Corporate Trust Office of the Trustee.

Except as provided below with respect to Global Bonds, upon surrender for registration of transfer of any Bond of such series at the office or agency of the Company maintained pursuant to Section 7.02 in a Place of Payment for such series, the Company shall execute, and the Trustee shall authenticate and deliver, in each case in accordance with the procedures set forth in the Appendix, the name of the designated transferee or transferees, one or more new Bonds of the same series of authorized denominations and of like tenor and aggregate principal amount.

Any Bond of such series may be exchanged at the option of the Holder, for one or more new Bonds of the same series of authorized denominations and of like tenor and aggregate principal amount, upon surrender of the Bonds to be exchanged at any such office or agency. Whenever any Bonds are so surrendered for exchange, the Company shall execute, and the Trustee shall authenticate and deliver, in each case in accordance with the procedures set forth in the Appendix, the Bonds which the Holder making the exchange is entitled to receive.

All Bonds delivered upon any registration of transfer or exchange of Bonds shall be valid obligations of the Company, evidencing the same obligation, and entitled to the same benefits under this Indenture, as the Bonds surrendered upon such registration of transfer or exchange. Every Bond presented or surrendered for registration of transfer shall be duly endorsed or shall be accompanied by a written instrument of transfer in form satisfactory to the Company, the Trustee or the Bond Registrar, as the case may be, duly executed by the Holder thereof or his attorney duly authorized in writing. Every Bond presented or surrendered for exchange shall (if so required by the Company, the Trustee or the Bond Registrar) be duly endorsed or shall be

accompanied by a written instrument of transfer in form satisfactory to the Company, the Trustee or the Bond Registrar, as the case may be, duly executed by the Holder thereof or such Holder's attorney duly authorized in writing.

No service charge shall be made for any registration of transfer or exchange of Bonds, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with any registration of transfer or exchange of Bonds, other than exchanges pursuant to Section 3.04, 6.06 or 13.06 not involving any transfer.

The Company shall not be required to execute or to provide for the registration of transfer of or the exchange of (a) Bonds of any series during a period of fifteen (15) days immediately preceding the date notice is to be given identifying the serial numbers of the Bonds of such series called for redemption or (b) any Bond so selected for redemption in whole or in part, except the unredeemed portion of any Bond being redeemed in part.

Notwithstanding any other provision of this Section, unless and until it is exchanged in whole or in part for Bonds in certificated form, a Global Bond representing all or a portion of the Bonds of a series may not be transferred except as a whole by the Depositary for such series to a nominee of such Depositary or by a nominee of such Depositary to such Depositary or another nominee of such Depositary or by such Depositary or any such nominee to a successor Depositary for such series or a nominee of such successor Depositary.

If at any time (i) the Depositary for the Bonds of a series notifies the Company that it is unwilling or unable to continue as Depositary for the Bonds of such series or that it is no longer eligible under Section 3.13, and in any such case the Company has not appointed a successor Depositary within ninety (90) days after delivery of such notice, (ii) there has occurred and is continuing an Event of Default, or (iii) the Company in its sole discretion determines that the Bonds of any series issued in the form of one or more Global Bonds shall no longer be represented by such Global Bond or Bonds, then in each such event the Company will execute, and the Trustee, upon receipt of a Company Order for the authentication and delivery of certificated Bonds of such series, will authenticate and deliver, in each case in accordance with the procedures set forth in the Appendix, Bonds of such series in certificated form and in an aggregate principal amount equal to the principal amount of the Global Bond or Bonds representing such series in exchange for such Global Bond or Bonds.

The Depositary for such series of Bonds may surrender a Global Bond for such series of Bonds in exchange in whole or in part for Bonds of such series in certificated form on such terms as are acceptable to the Company and such Depositary, in each case, in accordance with the procedures set forth in the Appendix. Thereupon, the Company shall authenticate and deliver, without charge:

(i) to each Person specified by such Depositary a new Bond or Bonds of the same series, of any authorized denomination as requested by such Person in aggregate principal amount equal to and in exchange for such Person's beneficial interest in the Global Bonds; and

(ii) to such Depositary a new Global Bond in a denomination equal to the difference, if any, between the principal amount of the surrendered Global Bond and the aggregate principal amount of Bonds delivered to Holders thereof.

Bonds issued in exchange for a Global Bond pursuant to this Section and the Appendix shall be registered in such names and in such authorized denominations as the Depositary for such Global Bond, pursuant to instructions from its direct or indirect participants or otherwise, shall instruct the Trustee. The Trustee shall deliver such Bonds to the Persons in whose names such Bonds are so registered.

SECTION 3.06. Mutilated, Destroyed, Lost and Stolen Bonds.

If any mutilated Bond is surrendered to the Trustee, the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor a new Bond of the same series, and of like tenor and principal amount and bearing a number not contemporaneously outstanding.

If there shall be delivered to the Company and the Trustee (a) evidence to their satisfaction of the ownership of and the destruction, loss or theft of any Bond and (b) such security or indemnity as may be reasonably required by them to save each of them and any agent of either of them harmless, then, in the absence of notice to the Company or the Trustee that such Bond is held by a protected purchaser, the Company shall execute and the Trustee shall authenticate and deliver, in lieu of any such destroyed, lost or stolen Bond, a new Bond of the same series, and of like tenor and principal amount and bearing a number not contemporaneously outstanding.

Notwithstanding the foregoing, in case any such mutilated, destroyed, lost or stolen Bond has become or is about to become due and payable, the Company in its discretion may, but subject to compliance with the foregoing conditions, instead of issuing a new Bond, pay such Bond.

Upon the issuance of any new Bond under this Section, the Company may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other reasonable expenses (including the fees and expenses of the Trustee) connected therewith.

Every new Bond of any series issued pursuant to this Section in lieu of any destroyed, lost or stolen Bond shall constitute an additional contractual obligation of the Company, whether or not the destroyed, lost or stolen Bond shall be at any time enforceable by anyone other than the Holder of such new Bond, and any such new Bond shall be entitled to all the benefits of this Indenture equally and proportionately with any and all other Bonds of such series duly issued hereunder.

The provisions of this Section are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement or payment of mutilated, destroyed, lost or stolen Bonds.

SECTION 3.07. Payment of Interest; Interest Rights Preserved.

Interest on any Bond which is payable, and is punctually paid or duly provided for, on any Interest Payment Date shall be paid to the Person in whose name that Bond (or one or more

Predecessor Bonds) is registered at the close of business on the Regular Record Date for such interest, except that interest payable on the Stated Maturity of the principal of a Bond shall be paid to the Person to whom principal is paid. The initial payment of interest on any Bond of any series which is issued between a Regular Record Date and the related Interest Payment Date shall be payable as provided in such Bond or supplemental indenture with respect to the related series of Bonds. Except in the case of a Global Bond at the option of the Company, interest on any series of Bonds may be paid by (i) check mailed to the address of the Person entitled thereto as it shall appear on the Bond Register of such series or (ii) wire transfer in immediately available funds at such place and to such account as designated in writing by the Person entitled thereto as specified in the Bond Register of such series.

Any interest on any Bond of any series which is payable, but is not punctually paid or duly provided for, on any Interest Payment Date (herein called "Defaulted Interest") shall forthwith cease to be payable to the Holder on the related Regular Record Date by virtue of having been such Holder, and such Defaulted Interest may be paid by the Company, at its election in each case, as provided in clause (a) or (b) below:

(a) The Company may elect to make payment of any Defaulted Interest to the Persons in whose names the Bonds of such series (or their respective Predecessor Bonds) are registered at the close of business on a date (herein called a "Special Record Date") for the payment of such Defaulted Interest, which shall be fixed in the following manner. The Company shall notify the Trustee in writing of the amount of Defaulted Interest proposed to be paid on each Bond of such series and the date of the proposed payment, and at the same time the Company shall deposit with the Trustee an amount of money equal to the aggregate amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Trustee for such deposit on or prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the Persons entitled to such Defaulted Interest as in this clause provided. Thereupon the Trustee shall fix a Special Record Date for the payment of such Defaulted Interest which shall be not more than thirty (30) days and not less than ten (10) days prior to the date of the proposed payment and not less than twenty-five (25) days after the receipt by the Trustee of the notice of the proposed payment. The Trustee shall promptly notify the Company of such Special Record Date and, in the name and at the expense of the Company, shall, not less than fifteen (15) days prior to such Special Record Date, cause notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor to be given to each Holder of Bonds of such series. Notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor having been so mailed, such Defaulted Interest shall be paid to the Persons in whose names the Bonds of such series (or their respective Predecessor Bonds) are registered at the close of business on such Special Record Date.

(b) The Company may make payment of any Defaulted Interest on the Bonds of any series in any other lawful manner not inconsistent with the requirements of any securities exchange on which such Bonds may be listed, and upon such notice as may be required by such exchange, if, after notice given by the Company to the Trustee of the proposed payment pursuant to this clause, such manner of payment shall be deemed practicable by the Trustee.

Subject to the foregoing provisions of this Section and Section 3.05, each Bond delivered under this Indenture upon registration of transfer of or in exchange for or in lieu of any other Bond

shall carry the rights to interest accrued and unpaid, and to accrue, which were carried by such other Bond.

SECTION 3.08. Persons Deemed Owners.

The Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name any Bond is registered as the absolute owner of such Bond for the purpose of receiving payment of principal of and premium, if any, and (subject to Section 3.07) interest, if any, on such Bond and for all other purposes whatsoever, whether or not such Bond be overdue, and neither the Company, the Trustee nor any agent of the Company or the Trustee shall be affected by notice to the contrary.

SECTION 3.09. Cancellation by Bond Registrar.

All Bonds surrendered for payment, redemption, registration of transfer or exchange shall, if surrendered to any Person other than the Bond Registrar, be delivered to the Bond Registrar and, if not theretofore canceled, shall be promptly canceled by the Bond Registrar. The Company may at any time deliver to the Bond Registrar for cancellation any Bonds previously authenticated and delivered hereunder which the Company may have acquired in any manner whatsoever or which the Company shall not have issued and sold (or pledged), and all Bonds so delivered shall be promptly canceled by the Bond Registrar, which shall not prohibit the Company from issuing any Additional Bonds, or any Exchange Bonds in exchange for Initial Bonds. No Bonds shall be authenticated in lieu of or in exchange for any Bonds canceled as provided in this Section, except as expressly permitted by this Indenture. All canceled Bonds held by the Bond Registrar shall be disposed of in accordance with the Bond Registrar's then customary practice for disposing of securities, unless otherwise directed by a Company Order.

SECTION 3.10. Computation of Interest.

Interest on the Bonds of each series shall be computed on the basis of a three hundred sixty (360) day year consisting of twelve (12) thirty (30) day months and, with respect to any period less than a full calendar month, on the basis of the actual number of days elapsed during such period.

SECTION 3.11. Reserved.

SECTION 3.12. CUSIP Numbers.

The Company, in issuing the Bonds, may use "CUSIP" or other similar numbers (if then generally in use), and, if so, the Trustee or Bond Registrar may use CUSIP or such other numbers in notices of redemption as a convenience to Holders; provided that any such notice may state that no representation is made as to the correctness of such numbers either as printed on the Bonds or as contained in any notice of a redemption and that reliance may be placed only on the other identification numbers printed on the Bonds, in which case none of the Company or, as the case may be, the Trustee or the Bond Registrar, or any agent of any of them, shall have any liability in respect of any CUSIP number used on any such notice, and any such redemption shall not be affected by any defect in or omission of such numbers. The Company will promptly notify the Trustee of any change in the CUSIP numbers.

SECTION 3.13. Global Bonds.

The Company shall execute and the Trustee shall, in accordance with this Section and the Company Order with respect to such series, authenticate and deliver one or more Global Bonds in temporary or permanent form that (i) shall represent and shall be denominated in an aggregate amount equal to the aggregate principal amount of the Outstanding Bonds of such series to be represented by one or more Global Bonds, (ii) shall be registered in the name of the Depositary for such Global Bond or Bonds or the nominee of such Depositary, (iii) shall be delivered by the Trustee to such Depositary or pursuant to such Depositary's instruction or held by the Trustee as custodian for the Depositary, and (iv) shall bear a legend substantially to the following effect: "Unless and until it is exchanged in whole or in part for Bonds in certificated form, this Bond may not be transferred except as a whole by the Depositary to a nominee of the Depositary or by a nominee of the Depositary to the Depositary or another nominee of the Depositary or by the Depositary or any such nominee to a successor Depositary or a nominee of such successor Depositary."

The Depositary shall initially be DTC. The Company may at any time designate another Person to act as Depositary in place of DTC. Each Depositary designated pursuant to this Section 3.13 or otherwise for a Global Bond must, at the time of its designation and at all times while it serves as Depositary, be a clearing agency registered under the Exchange Act and any other applicable statute or regulation.

None of the Company, the Trustee, any Paying Agent or any Bond Registrar will have any responsibility or liability for any aspect of Depositary records relating to, or payments made on account of, beneficial ownership interests in a Global Bond or for maintaining, supervising or reviewing any Depositary records relating to such beneficial ownership interests, or for transfers of beneficial interests in the Bonds or any transactions between the Depositary and beneficial owners.

SECTION 3.14. Issuance of Additional Bonds.

After the Issue Date, the Company shall, subject to compliance with the terms of this Indenture but without notice to or the consent of any Holders, be entitled to create and issue Additional Bonds under this Indenture, which Bonds shall have identical terms as, and rank equally and ratably with, the Initial Bonds issued on the Issue Date or the Exchange Bonds exchanged therefor, other than with respect to the date of issuance, issue price, the initial interest accrual date and amount of interest payable on the first payment date applicable thereto. The Initial Bonds of the relevant series of Bonds and any Additional Bonds of the relevant series of Bonds and all Exchange Bonds of the relevant series of Bonds shall be treated as a single class for all purposes under this Indenture; provided, however, that no Additional Bonds may be issued with the same CUSIP number as the Bonds previously issued under this Indenture if such Additional Bonds are not fungible with such previously issued Bonds for U.S. federal income tax purposes.

With respect to any Additional Bonds, the Company shall set forth in a resolution of the Board of Directors of the Company and an Officers' Certificate, a copy of each of which shall be delivered to the Trustee, the following information:

- (i) the aggregate principal amount of such Additional Bonds to be authenticated and delivered pursuant to this Indenture;
- (ii) the issue price, the issue date, the initial interest accrual date and the CUSIP number of such Additional Bonds; and
- (iii) whether such Additional Bonds shall be Initial Bonds or shall be issued in the form of Exchange Bonds as set forth in Exhibit A.

ARTICLE IV

[RESERVED.]

ARTICLE V

[RESERVED.]

ARTICLE VI

REDEMPTION OF BONDS

SECTION 6.01. Applicability of Article.

Bonds of any series which are redeemable before their Stated Maturity shall be redeemable in accordance with their terms and in accordance with this Article.

SECTION 6.02. Election to Redeem; Notice to Trustee.

The election of the Company to redeem any Bonds shall be evidenced by a Board Resolution or an Officer's Certificate. If the Company elects to redeem a Bond pursuant to its terms, the Company shall, at least fifteen (15) days prior to the Redemption Date fixed by the Company (unless a shorter notice shall be satisfactory to the Trustee), notify the Trustee in writing of such Redemption Date and of the principal amount of such Bonds to be redeemed. In the case of any redemption of Bonds (a) prior to the expiration of any restriction on such redemption provided in the terms of such Bonds or elsewhere in this Indenture or (b) pursuant to an election of the Company which is subject to a condition specified in the terms of such Bonds, the Company shall furnish the Trustee with an Officer's Certificate evidencing compliance with such restriction or condition.

SECTION 6.03. Selection of Bonds to Be Redeemed.

If less than all the Bonds of any series are to be redeemed, the particular Bonds to be redeemed shall be selected by the Bond Registrar from the Outstanding Bonds of such series not previously called for redemption, by such method as shall be provided for any particular series, or, in the absence of any such provision, by such method of random selection as the Bond Registrar shall

deem fair and appropriate and which may, in any case, provide for the selection for redemption of portions (equal to the minimum authorized denomination for Bonds of such series or any integral multiple thereof) of the principal amount of Bonds of such series having a denomination larger than the minimum authorized denomination for Bonds of such series; provided, however, that if, as indicated in an Officer's Certificate, the Company shall have offered to purchase all or any principal amount of the Bonds then Outstanding of any series, and less than all of such Bonds as to which such offer was made shall have been tendered to the Company for such purchase, the Bond Registrar, if so directed by Company Order, shall select for redemption all or any principal amount of such Bonds which have not been so tendered.

The Bond Registrar shall promptly notify the Company and the Trustee in writing of the Bonds selected for redemption and, in the case of any Bonds selected to be redeemed in part, the principal amount thereof to be redeemed.

For all purposes of this Indenture, unless the context otherwise requires, all provisions relating to the redemption of Bonds shall relate, in the case of any Bonds redeemed or to be redeemed only in part, to the portion of the principal amount of such Bonds which has been or is to be redeemed.

SECTION 6.04. Notice of Redemption.

Notice of redemption shall be given in the manner provided in Section 1.06 to the Holders of the Bonds to be redeemed not less than ten (10) nor more than sixty (60) days prior to the Redemption Date in the manner set forth below and by e-mail to the Depositary.

All notices of redemption shall state:

- (a) the Redemption Date,
- (b) the Redemption Price; *provided, however*, that such notice need not state the dollar amount of the Redemption Price if such dollar amount has not been determined as of the date of such notice,
- (c) if less than all the Bonds of any series are to be redeemed, the identification of the particular Bonds to be redeemed and the portion of the principal amount of any Bond to be redeemed in part,
- (d) that on the Redemption Date, the Redemption Price, together with accrued interest, if any, to the Redemption Date, will become due and payable upon each such Bond to be redeemed and, if applicable, that interest thereon will cease to accrue on and after said date; provided, that if a conditional notice shall be given, other appropriate language shall be inserted indicating the conditional nature of the redemption,
- (e) the place or places where such Bonds are to be surrendered for payment of the Redemption Price and accrued interest, if any, and
- (f) such other matters as the Company shall deem desirable or appropriate.

Unless otherwise specified with respect to any series of Bonds, with respect to any redemption of Bonds at the election of the Company or any redemption which is contingent on the occurrence or nonoccurrence of an event or condition which cannot be ascertained prior to the time a redemption notice is required to be given hereunder, such notice may state that such redemption shall be conditional upon receipt by the Trustee or the Paying Agent or Agents for such Bonds, on or prior to the date fixed for such redemption, of money sufficient to pay the Redemption Price of such Bonds and accrued interest, if any, thereon to the Redemption Date (or direction from the Company to apply such money for the payment of such Bonds, if such money shall have been deposited with the Trustee or Paying Agent or Agents upon the condition that the Trustee or Paying Agent or Agents will apply such money only at the direction of the Company) and that if such money shall not have been so received (or if such money shall have been received but the Trustee or the Paying Agent or Agents have been directed by the Company not to apply such money to redeem such Bonds) such notice shall be of no force or effect and the Company shall not be required to redeem such Bonds; provided, however, that conditional notice shall not be given if upon the giving of notice, such Bonds shall be deemed to have been paid in accordance with Section 8.01. In the event that such notice of redemption contains such a condition and such money is not so received, or the Trustee or Paying Agent or Agents have been directed by the Company not to apply such money to the redemption of such Bonds, the redemption shall not be made, and within a reasonable time thereafter notice shall be given, in the manner in which the notice of redemption was given, that such money was not so received or that the Trustee or Paying Agent or Agents have been directed by the Company not to redeem such Bonds and such redemption was not required to be made, and the Trustee or Paying Agent or Agents for the Bonds otherwise to have been redeemed shall promptly return to the Holders thereof any of such Bonds which had been surrendered for payment upon such redemption.

Notice of redemption of Bonds to be redeemed at the election of the Company, and any notice of non-satisfaction of a condition for redemption as aforesaid, shall be given by the Company or, at the Company's request, by the Bond Registrar in the name and at the expense of the Company. Notice of mandatory redemption of Bonds shall be given by the Bond Registrar in the name and at the expense of the Company.

SECTION 6.05. Bonds Payable on Redemption Date.

Notice of redemption having been given as aforesaid, and the conditions, if any, set forth in such notice having been satisfied, the Bonds or portions thereof so to be redeemed shall, on the Redemption Date, become due and payable at the Redemption Price therein specified, and from and after such date (unless, in the case of an unconditional notice of redemption, the Company shall default in the payment of the Redemption Price and accrued interest, if any) such Bonds or portions thereof, if interest-bearing, shall cease to bear interest. Upon surrender of any such Bond for redemption in accordance with such notice, such Bond or portion thereof shall be paid by the Company at the Redemption Price, together with accrued interest, if any, to the Redemption Date; provided, however, any installment of interest on any Bond the Stated Maturity of which installment is on or prior to the Redemption Date shall be payable to the Holder of such Bond, or one or more Predecessor Bonds, registered as such at the close of business on the related Regular Record Date according to the terms of such Bond and subject to the provisions of Section 3.07.

SECTION 6.06. Bonds Redeemed in Part.

Upon the surrender of any Bond which is to be redeemed only in part at a Place of Payment therefor (with, if the Company or the Trustee so requires, due endorsement by, or a written instrument of transfer in form satisfactory to the Company and the Trustee duly executed by, the Holder thereof or his attorney duly authorized in writing), the Company shall execute, and the Trustee shall authenticate and deliver to the Holder of such Bond, without service charge, a new Bond or Bonds of the same series, of any authorized denomination requested by such Holder and of like tenor and in aggregate principal amount equal to and in exchange for the unredeemed portion of the principal of the Bond so surrendered.

ARTICLE VII

COVENANTS

SECTION 7.01. Payment of Bonds.

The Company shall pay the principal of and premium, if any, and interest, if any, on the Bonds of each series in accordance with the terms of such Bonds and this Indenture. Additional Interest, if any, shall be payable under the circumstances and at the rate specified in any Registration Rights Agreement then in effect.

SECTION 7.02. Maintenance of Office or Agency.

The Company shall maintain in each Place of Payment for the Bonds of each series, an office or agency where payment of such Bonds shall be made, and where the registration of transfer or exchange of such Bonds may be effected and where notices and demands to or upon the Company in respect of such Bonds and this Indenture may be served. The Company shall give prompt written notice to the Trustee of the location, and any change in the location, of each such office or agency. If at any time the Company shall fail to maintain any such required office or agency in respect of Bonds of any series, or shall fail to furnish the Trustee with the address thereof, payment of such Bonds shall be made, registration of transfer or exchange thereof may be effected and notices and demands in respect thereof may be served at the Corporate Trust Office of the Trustee, and the Company hereby appoints the Trustee as its agent for all such purposes in any such event.

The Company may also from time to time designate one or more other offices or agencies with respect to the Bonds of one or more series for any or all of the foregoing purposes and may from time to time rescind such designations; provided, however, that no such designation or rescission shall in any manner relieve the Company of its obligation to maintain an office or agency for such purposes. The Company shall give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other office or agency.

Anything herein to the contrary notwithstanding, any office or agency required by this Section may be maintained at an office of the Company, in which event the Company shall perform all functions to be performed at such office or agency.

SECTION 7.03. Money for Bond Payments to Be Held in Trust.

If the Company shall at any time act as its own Paying Agent with respect to the Bonds of any series, it shall, on or before each due date of the principal of and premium, if any, and interest, if any, on any of such Bonds, segregate and hold in trust for the benefit of the Persons entitled thereto a sum sufficient to pay the principal and premium or interest so becoming due until such sums shall be paid to such Persons or otherwise disposed of as herein provided. The Company shall promptly notify the Trustee of any failure by the Company (or any other obligor on such Bonds) to make any payment of principal of or premium, if any, or interest, if any, on such Bonds.

Whenever the Company shall have one or more Paying Agents for the Bonds of any series, it shall, on or before each due date of the principal of and premium, if any, and interest, if any, on such Bonds, deposit with such Paying Agents sums sufficient (without duplication) to pay the principal and premium or interest so becoming due, such sums to be held in trust for the benefit of the Persons entitled to such principal, premium or interest, and (unless such Paying Agent is the Trustee) the Company shall promptly notify the Trustee of any failure by it so to act.

Upon their appointment as Paying Agent, the Company shall cause each Paying Agent for the Bonds of any series, other than the Company or the Trustee, to execute and deliver to the Trustee an instrument in which such Paying Agent shall agree with the Trustee, subject to the provisions of this Section, that such Paying Agent shall:

- (a) hold all sums held by it for the payment of the principal of and premium, if any, or interest, if any, on such Bonds in trust for the benefit of the Persons entitled thereto until such sums shall be paid to such Persons or otherwise disposed of as herein provided;
- (b) give the Trustee notice of any failure by the Company (or any other obligor upon such Bonds) to make any payment of principal of or premium, if any, or interest, if any, on such Bonds; and
- (c) at any time during the continuance of any such failure, upon the written request of the Trustee, forthwith pay to the Trustee all sums so held in trust by such Paying Agent and furnish to the Trustee such information as it possesses regarding the names and addresses of the Persons entitled to such sums.

The Company may at any time pay, or by Company Order direct any Paying Agent to pay, to the Trustee all sums held in trust by the Company or such Paying Agent, such sums to be held by the Trustee upon the same trusts as those upon which such sums were held by the Company or such Paying Agent and, if so stated in a Company Order delivered to the Trustee, in accordance with the provisions of Article VIII; and, upon such payment by any Paying Agent to the Trustee, such Paying Agent shall be released from all further liability with respect to such money.

Unless otherwise prescribed by applicable law, any money deposited with the Trustee or any Paying Agent, or then held by the Company, in trust for the payment of the principal of and premium, if any, or interest, if any, on any Bond and remaining unclaimed for two years after such principal and premium, if any, or interest, if any, has become due and payable shall be paid to the Company on Company Request, or, if then held by the Company, shall be discharged from

such trust without further action by the Company, Trustee or any Paying Agent; and, upon such payment or discharge, the Holder of such Bond shall, as an unsecured general creditor and not as the Holder of an Outstanding Bond, look only to the Company for payment of the amount so due and payable and remaining unpaid, and all liability of the Trustee or such Paying Agent with respect to such trust money, and all liability of the Company as trustee thereof, shall thereupon cease; provided, however, that the Trustee or such Paying Agent, before being required to make any such payment to the Company, shall, upon receipt of a Company Request and at the expense of the Company, cause to be mailed, on one occasion only, notice to such Holder that such money remains unclaimed and that, after a date specified therein, which shall not be less than thirty (30) days from the date of such mailing, any unclaimed balance of such money then remaining will be paid to the Company.

SECTION 7.04. Corporate Existence.

Subject to the rights of the Company under Article XII, the Company shall do or cause to be done all things necessary to preserve and keep its corporate existence in full force and effect.

SECTION 7.05. Waiver of Certain Covenants.

The Company may omit in any particular instance to comply with any term, provision or condition set forth in

(a) any covenant or restriction specified with respect to the Bonds of any one or more series, if before the time for such compliance the Holders of not less than a majority in aggregate principal amount of the Outstanding Bonds of all series with respect to which compliance with such covenant or restriction is to be omitted, considered as one class, shall, by Act of such Holders, either waive such compliance in such instance or generally waive compliance with such term, provision or condition; provided, however, that no such waiver shall be effective as to any of the matters contemplated in clause (a), (b) or (c) in Section 13.02 without the consent of the Holders specified in such Section; and

(b) Section 7.04 or 7.07 or Article XII if, before the time for such compliance, the Holders of not less than a majority in principal amount of Bonds Outstanding under this Indenture shall, by Act of such Holders, either waive such compliance in such instance or generally waive compliance with such term, provision or condition;

but, in either case, no such waiver shall extend to or affect such term, provision or condition except to the extent so expressly waived, and, until such waiver shall become effective, the obligations of the Company and the duties of the Trustee in respect of any such term, provision or condition shall remain in full force and effect.

SECTION 7.06. Annual Officer's Certificate as to Compliance.

Not later than June 1 in each year, commencing June 1, 2018, the Company shall deliver to the Trustee a certificate (which need not comply with Section 1.02) executed by the principal executive officer, the principal financial officer or the principal accounting officer of the Company, as to such officer's knowledge of the Company's compliance with all conditions and

covenants under this Indenture, such compliance to be determined without regard to any period of grace or requirement of notice under this Indenture.

SECTION 7.07. Limitation on Liens.

(a) The Company will not, nor will it permit any Significant Subsidiary to, (1) issue, incur, assume or permit to exist any Debt, if such Debt is secured by a Lien on any Principal Property (whether such Principal Property was owned at the Issue Date or thereafter acquired), unless the Company provides that Outstanding Bonds will be equally and ratably secured by such Liens for as long as any such Debt shall be so secured or (2) incur or permit to exist any Attributable Debt in respect of Principal Property; provided, however, that the foregoing restriction shall not apply to:

(i) any Liens existing on the Issue Date;

(ii) to the extent the Company or any Significant Subsidiary consolidates with, or merges with or into, another entity, Liens on the property of such entity securing Debt in existence on the date of such consolidation or merger, provided that such Debt and Liens were not created or incurred in anticipation of such consolidation or merger and that such Liens do not extend to or cover any such Principal Property;

(iii) Liens on property acquired after the Issue Date and existing at the time of such acquisition, as long as the Lien was not created or incurred in anticipation thereof and does not extend to or cover any other Principal Property;

(iv) Liens of any kind, including purchase money Liens, conditional sales agreements or title retention agreements and similar agreements, upon any property acquired, constructed, developed or improved by the Company or any Significant Subsidiary (whether alone or in association with others) which do not exceed the cost or value of the property acquired, constructed, developed or improved and which are created prior to, at the time of, or within twelve (12) months after such acquisition (or in the case of property constructed, developed or improved, within twelve (12) months after the completion of such construction, development or improvement and commencement of full commercial operation of such property, whichever is later) to secure or provide for the payment of any part of the purchase price or cost thereof; provided that the Liens shall not extend to any Principal Property other than the property so acquired, constructed, developed or improved;

(v) Liens in favor of the United States, any state or any foreign country or any department, agency or instrumentality or political subdivision of any such jurisdiction to secure payments pursuant to any contract or statute or to secure any indebtedness incurred for the purpose of financing all or any part of the purchase price or cost of constructing or improving the property subject to such Lien, including Liens related to governmental obligations the interest on which is tax-exempt under Section 103 of the Internal Revenue Code or any successor section of the Internal Revenue Code;

(vi) Liens in favor of the Company, one or more Significant Subsidiaries of the Company, one or more wholly-owned Subsidiaries of the Company or any of the foregoing combination; and

(vii) replacements, extensions or renewals (or successive replacements, extensions or renewals), in whole or in part, of any Lien, or of any agreement, referred to above in clauses (i) through (vi) inclusive, or replacements, extensions or renewals of the Debt secured thereby (to the extent that the amount of Debt secured by any such Lien is not increased from the amount originally so secured, plus any premium, interest, fee or expenses payable in connection with any replacements, refundings, refinancings, remarketings, extensions or renewals); provided that such replacement, extension or renewal is limited to all or a part of the same property (plus improvements thereon or additions or accessions thereto) that secured the Lien replaced, extended or renewed.

(b) Notwithstanding the restriction in subsection (a) of this Section 7.07, the Company or any Significant Subsidiary may (1) issue, incur or assume Debt secured by a Lien not described in clauses (i) through (vii) of subsection (a) above on any Principal Property owned at the Issue Date or thereafter acquired without providing that the Outstanding Bonds be equally and ratably secured with such Lien and (2) issue or permit to exist Attributable Debt in respect of Principal Property, in either case, so long as the aggregate amount of such secured Debt and Attributable Debt, together with the aggregate amount of all other Debt secured by Liens on Principal Property not described in clauses (i) through (vii) of subsection (a) above then outstanding and all other Attributable Debt in respect of Principal Property, does not exceed 10% of the Net Tangible Assets of the Company, as determined by the Company as of a month end not more than 90 days prior to the closing or consummation of the proposed transaction.

(c) For purposes of determining compliance with this Section 7.07, in the event that any Lien at any time meets the criteria of more than one of the categories described in clauses (i) through (vii) above of Section 7.07(a), or is entitled to be created pursuant to Section 7.07(b), the Company will be permitted to classify (and later reclassify) in whole or in part in its sole discretion such Lien in any manner that complies with this Section 7.07.

(d) For purposes of determining compliance with any Dollar-denominated restriction on the incurrence of Debt secured by Liens on Principal Property, the Dollar-equivalent principal amount of Debt denominated in a foreign currency will be calculated based on the relevant currency exchange rate in effect on the date such Debt was incurred, in the case of term Debt, or first committed, in the case of revolving credit Debt; provided that if such Debt is incurred to refinance other Debt denominated in the same foreign currency, and such refinancing would cause the applicable Dollar-denominated restriction to be exceeded if calculated at the relevant currency exchange rate in effect on the date of such refinancing, the Dollar-denominated restriction will be deemed not to have been exceeded so long as the principal amount of the refinancing Debt does not exceed the principal amount of the Debt being refinanced. Notwithstanding any other provision of this Section 7.07, the maximum amount of Debt secured by Liens on Principal Property that the Company or any Significant Subsidiary may incur pursuant to this covenant will not be deemed to be exceeded solely as a result of fluctuations in the exchange rate of currencies.

(e) For purposes of this Section 7.07, "Debt" of a Significant Subsidiary shall mean any debt of such Significant Subsidiary for money borrowed and guarantees by such Significant Subsidiary of debt for money borrowed, but in each case excluding liabilities in respect of Capital Lease Obligations or Swap Agreements.

ARTICLE VIII

SATISFACTION AND DISCHARGE

SECTION 8.01. Satisfaction and Discharge of Bonds.

Any Bond or Bonds, or any portion of the principal amount thereof, shall be deemed to have been paid and no longer Outstanding for all purposes of this Indenture, and the entire indebtedness of the Company in respect thereof shall be satisfied and discharged, if there shall have been irrevocably deposited with the Trustee or any Paying Agent (other than the Company), in trust:

(a) money in an amount which shall be sufficient, or

(b) in the case of a deposit made prior to the Maturity of such Bonds or portions thereof, Eligible Obligations, which shall not contain provisions permitting the redemption or other prepayment thereof at the option of the issuer thereof, the principal of and the interest on which when due, without any regard to reinvestment thereof, will provide moneys which, together with the money, if any, deposited with or held by the Trustee or such Paying Agent, shall be sufficient, or

(c) a combination of (a) or (b) which shall be sufficient to pay when due the principal of and premium, if any, and interest, if any, due and to become due on such Bonds or portions thereof;

provided, however, that in the case of the provision for payment or redemption of less than all the Bonds of any series, such Bonds or portions thereof shall have been selected by the Bond Registrar as provided herein and, in the case of a redemption, the notice requisite to the validity of such redemption shall have been given or irrevocable authority shall have been given by the Company to the Trustee to give such notice, under arrangements satisfactory to the Trustee; and provided, further, that the Company shall have delivered to the Trustee and such Paying Agent:

(x) if such deposit shall have been made prior to the Maturity of such Bonds, a Company Order stating that the money and Eligible Obligations deposited in accordance with this Section shall be held in trust, as provided in Section 8.03;

(y) if Eligible Obligations shall have been deposited, an Opinion of Counsel to the effect that such obligations constitute Eligible Obligations and do not contain provisions permitting the redemption or other prepayment thereof at the option of the issuer thereof, and an opinion of an Independent public Accountant of nationally recognized standing, selected by the Company, to the effect that the other requirements set forth in clause (b) above have been satisfied; and

(z) if such deposit shall have been made prior to the Maturity of such Bonds, an Officer's Certificate stating the Company's intention that, upon delivery of such Officer's Certificate, its indebtedness in respect of such Bonds or portions thereof will have been satisfied and discharged as contemplated in this Section.

Upon the deposit of money or Eligible Obligations, or both, in accordance with this Section, together with the documents required by clauses (x), (y) and (z) above, as applicable, the Trustee shall, upon Company Request, acknowledge in writing that such Bonds or portions thereof are

deemed to have been paid for all purposes of this Indenture and that the entire indebtedness of the Company in respect thereof has been satisfied and discharged as contemplated in this Section. In the event that all of the conditions set forth in the preceding paragraph shall have been satisfied in respect of any Bonds or portions thereof except that, for any reason, the Officer's Certificate specified in clause (z) (if otherwise required) shall not have been delivered, such Bonds or portions thereof shall nevertheless be deemed to have been paid for all purposes of this Indenture, and the Holders of such Bonds or portions thereof shall nevertheless be no longer entitled to the benefits of this Indenture (other than with respect to such deposit) or of any of the covenants of the Company under Article VII (except the covenants contained in Sections 7.02 and 7.03) or any other covenants made in respect of such Bonds or portions thereof, but the indebtedness of the Company in respect of such Bonds or portions thereof shall not be deemed to have been satisfied and discharged prior to Maturity for any other purpose; and, upon Company Request, the Trustee shall acknowledge in writing that such Bonds or portions thereof are deemed to have been paid for all purposes of this Indenture.

If payment at Stated Maturity of less than all of the Bonds of any series is to be provided for in the manner and with the effect provided in this Section, the Bond Registrar shall select such Bonds, or portions of principal amount thereof, in the manner specified by Section 6.03 for selection for redemption of less than all the Bonds of a series.

In the event that Bonds which shall be deemed to have been paid for purposes of this Indenture, and, if such is the case, in respect of which the Company's indebtedness shall have been satisfied and discharged, all as provided in this Section, do not mature and are not to be redeemed within the sixty (60) day period commencing with the date of the deposit of moneys or Eligible Obligations, as aforesaid, the Company shall, as promptly as practicable, give a notice, in the same manner as a notice of redemption with respect to such Bonds, to the Holders of such Bonds to the effect that such deposit has been made and the effect thereof.

Notwithstanding that any Bonds shall be deemed to have been paid for purposes of this Indenture, as aforesaid, the obligations of the Company and the Trustee in respect of such Bonds under Sections 3.04, 3.05, 3.06, 6.04, 7.02, 7.03, 10.07 and 10.15 and this Article shall survive.

The Company shall pay, and shall indemnify the Trustee or any Paying Agent with which Eligible Obligations shall have been deposited as provided in this Section against, any tax, fee or other charge imposed on or assessed against such Eligible Obligations or the principal or interest received in respect of such Eligible Obligations, including, but not limited to, any such tax payable by any entity deemed, for tax purposes, to have been created as a result of such deposit.

Anything herein to the contrary notwithstanding, (a) if, at any time after a Bond would be deemed to have been paid for purposes of this Indenture, and, if such is the case, the Company's indebtedness in respect thereof would be deemed to have been satisfied and discharged, pursuant to this Section (without regard to the provisions of this paragraph), the Trustee or any Paying Agent, as the case may be, shall be required to return the money or Eligible Obligations, or combination thereof, deposited with it as aforesaid to the Company or its representative under any applicable federal or state bankruptcy, insolvency or other similar law, such Bond shall thereupon be deemed retroactively not to have been paid and any satisfaction and discharge of the Company's indebtedness in respect thereof shall retroactively be deemed not to have been

effected, and such Bond shall be deemed to remain Outstanding and (b) any satisfaction and discharge of the Company's indebtedness in respect of any Bond shall be subject to the provisions of the last paragraph of Section 7.03.

SECTION 8.02. Satisfaction and Discharge of Indenture.

This Indenture shall upon Company Request cease to be of further effect (except as hereinafter expressly provided), and the Trustee, at the expense of the Company, shall execute such instruments as the Company shall reasonably request to evidence and acknowledge the satisfaction and discharge of this Indenture, when:

(a) no Bonds remain Outstanding hereunder;

(b) the Company has paid or caused to be paid all other sums payable hereunder by the Company; and

(c) the Company has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel each stating that all conditions precedent herein provided for relating to the satisfaction and discharge of this Indenture have been complied with;

provided, however, that if, in accordance with the last paragraph of Section 8.01, any Bond, previously deemed to have been paid for purposes of this Indenture, shall be deemed retroactively not to have been so paid, this Indenture shall thereupon be deemed retroactively not to have been satisfied and discharged, as aforesaid, and to remain in full force and effect, and the Company shall execute and deliver such instruments as the Trustee shall reasonably request to evidence and acknowledge the same.

Notwithstanding the satisfaction and discharge of this Indenture as aforesaid, the obligations of the Company and the Trustee under Sections 3.04, 3.05, 3.06, 6.04, 7.02, 7.03, 10.07 and 10.15 and this Article shall survive.

Upon satisfaction and discharge of this Indenture as provided in this Section, the Trustee shall execute and deliver to the Company such instruments as, in the judgment of the Company, shall be necessary, desirable or appropriate to effect or evidence the satisfaction and discharge of this Indenture.

SECTION 8.03. Application of Trust Money.

Neither the Eligible Obligations nor the money deposited pursuant to Section 8.01, nor the principal or interest payments on any such Eligible Obligations, shall be withdrawn or used for any purpose other than, and shall be held in trust for, the payment of the principal of and premium, if any, and interest, if any, on the Bonds or portions of principal amount thereof in respect of which such deposit was made, all subject, however, to the provisions of Section 7.03; provided, however, that any cash received from such principal or interest payments on such Eligible Obligations, if not then needed for such purpose, shall, to the extent practicable and upon Company Request and delivery to the Trustee of the documents referred to in subclause (y) of clause (c) in Section 8.01, be invested pursuant to a Company Order in Eligible Obligations designated and selected by the Company of the type described in clause (b) in Section 8.01

maturing at such times and in such amounts as shall be sufficient, together with any other moneys and the proceeds of any other Eligible Obligations then held by the Trustee, to pay when due the principal of and premium, if any, and interest, if any, due and to become due on such Bonds or portions thereof on and prior to the Maturity thereof, and interest earned from such reinvestment shall be paid over to the Company as received; and provided, further, that any moneys held in accordance with this Section on the Maturity of all such Bonds in excess of the amount required to pay the principal of and premium, if any, and interest, if any, then due on such Bonds shall be paid over to the Company.

ARTICLE IX

EVENTS OF DEFAULT; REMEDIES

SECTION 9.01. Events of Default.

“Event of Default”, wherever used herein with respect to the Bonds, means any of the following events which shall have occurred and be continuing:

- (a) the failure to pay interest, if any, on any Bond within thirty (30) days after the same becomes due and payable; or
- (b) the failure to pay the principal of, or premium, if any, on any Bond after the same becomes due and payable; or
- (c) the failure to perform or breach of any covenant or warranty of the Company in this Indenture (other than a covenant or warranty a default in the performance of which or breach of which is elsewhere in this Section specifically dealt with) for a period of ninety (90) days after there has been given, by registered or certified mail, return receipt requested, to the Company by the Trustee, or to the Company and the Trustee by the Holders of at least thirty-three percent (33%) in principal amount of the Bonds then Outstanding, a written notice specifying such default or breach and requiring it to be remedied and stating that such notice is a “Notice of Default” hereunder, unless the Trustee is directed by the Holders of a principal amount of Bonds not less than the principal amount of Bonds the Holders of which gave such notice, as the case may be, to agree in writing to an extension of such period prior to its expiration; or
- (d) the entry by a court having jurisdiction in the premises of (i) a decree or order for relief in respect of the Company in an involuntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or (ii) a decree or order adjudging the Company a bankrupt or insolvent, or approving as properly filed a petition by one or more Persons other than the Company seeking reorganization, arrangement, adjustment or composition of or in respect of the Company under any applicable federal or state bankruptcy, insolvency or other similar law, or appointing a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official for the Company or for any substantial part of its property, or ordering the winding up or liquidation of its affairs, and any such decree or order for relief or any such other decree or order shall have remained unstayed and in effect for a period of ninety (90) consecutive days; or

(e) the commencement by the Company of a voluntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or of any other case or proceeding to be adjudicated a bankrupt or insolvent, or the consent by the Company to the entry of a decree or order for relief in respect of the Company in an involuntary case or proceeding under any applicable federal or state bankruptcy, insolvency or other similar law or to the commencement of any bankruptcy or insolvency case or proceeding against the Company, or the filing by the Company of a petition or answer or consent seeking reorganization or relief under any applicable federal or state bankruptcy, insolvency or other similar law, or the consent by the Company to the filing of such petition or to the appointment of or taking possession by a custodian, receiver, liquidator, assignee, trustee, sequestrator or similar official of the Company or of any substantial part of its property, or the making by the Company of a general assignment for the benefit of creditors, or an admission in writing by the Company of its inability to pay its debts generally as they become due; or

(f) the occurrence of any event of default as defined in any mortgage, indenture or instrument under which there may be issued, or by which there may be secured or evidenced, any Debt of the Company, whether such Debt existed on the Issue Date or shall thereafter be created, if such event of default:

(i) is caused by a failure to pay principal after final maturity of such Debt after the expiration of the grace period provided in such Debt (a "Payment Default"), or

(ii) results in the acceleration of such Debt prior to its express maturity,

and in each case, the principal amount of any such Debt, together with the principal amount of any other such Debt under which there has been a Payment Default or the maturity of which has been so accelerated, aggregates \$150,000,000 or more.

For purposes of Section 9.01(f), the amount of \$150,000,000 shall be increased in any calendar year subsequent to 2017 by the same percentage increase in the CPI Index for the period commencing January 1, 2017 and ending on January 1 of the applicable calendar year.

SECTION 9.02. Acceleration of Maturity; Rescission and Annulment.

If an Event of Default shall have occurred and be continuing, then in every such case the Trustee or the Holders of not less than thirty-three percent (33%) in aggregate principal amount of Bonds then Outstanding, considered as one class, may declare the principal amount of all Bonds then Outstanding to be due and payable immediately, by a notice in writing to the Company (and to the Trustee if given by Holders), and upon such declaration such principal amount (or specified amount), together with premium, if any, and accrued interest, if any, thereon, shall become immediately due and payable; provided, however, that with respect to an Event of Default described in Section 9.01(d) or (e), the principal amount of all Bonds then Outstanding shall be due and payable immediately without further action by the Trustee or Holders.

At any time after such a declaration of acceleration of the Maturity of the Bonds then Outstanding shall have been made, but before a judgment or decree for payment of the money due shall have been obtained by the Trustee as provided in this Article, the Event or Events of Default giving rise to such declaration of acceleration shall, without further act and

notwithstanding anything to the contrary in Section 316(a) of the Trust Indenture Act, be deemed to have been waived, and such declaration and its consequences shall, without further act, be deemed to have been rescinded and annulled, if

(a) the Company shall have paid or deposited with the Trustee a sum sufficient to pay

(i) all overdue interest, if any, on all Bonds then Outstanding;

(ii) the principal of and premium, if any, on any Bonds then Outstanding which have become due otherwise than by such declaration of acceleration and interest thereon at the rate or rates prescribed therefor in such Bonds; and

(iii) all amounts due to the Trustee under Section 10.07; and

(b) any other Event or Events of Default, other than the non-payment of the principal of Bonds which shall have become due solely by such declaration of acceleration, shall have been cured or waived as provided in Section 9.13.

No such rescission shall affect any subsequent Event of Default or impair any right consequent thereon.

SECTION 9.03. Collection of Indebtedness and Suits for Enforcement by Trustee.

If an Event of Default described in clause (a) or (b) of Section 9.01 shall have occurred and be continuing, the Company shall, upon demand of the Trustee, pay to it, for the benefit of the Holders of the Bonds with respect to which such Event of Default shall have occurred, the whole amount then due and payable on such Bonds for principal and premium, if any, and interest, if any, and, in addition thereto, such further amount as shall be sufficient to cover any amounts due to the Trustee under Section 10.07.

If the Company shall fail to pay such amounts forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, may institute a judicial proceeding for the collection of the sums so due and unpaid, may prosecute such proceeding to judgment or final decree and may enforce the same against the Company or any other obligor upon such Bonds and collect the moneys adjudged or decreed to be payable in the manner provided by law out of the property of the Company or any other obligor upon such Bonds, wherever situated. No recovery of any such judgment by the Trustee shall affect or impair any rights, powers or remedies of the Trustee hereunder, or any rights, powers or remedies of the Holders of the Bonds.

SECTION 9.04. Application of Money Collected.

Any money collected by the Trustee pursuant to this Article, including amounts collected pursuant to Section 9.03 (after the deductions therein provided) shall be applied in the following order, to the extent permitted by law, at the date or dates fixed by the Trustee and, in case of the distribution of such money on account of principal or premium, if any, or interest, if any, upon presentation of the Bonds and the notation thereon of the payment if only partially paid and upon surrender thereof if fully paid:

First: To the payment of all amounts due the Trustee under Section 10.07;

Second: To the payment of the whole amount then due and unpaid upon the Outstanding Bonds for principal and premium, if any, and interest, if any, in respect of which or for the benefit of which such money has been collected; and in case such proceeds shall be insufficient to pay in full the whole amount so due and unpaid upon such Bonds, then to the payment of such principal and interest, if any, thereon without any preference or priority, ratably according to the aggregate amount so due and unpaid, with any balance then remaining to the payment of premium, if any, and overdue interest, if any, ratably as aforesaid, all to the extent permitted by applicable law; provided, however, that any money collected by the Trustee pursuant to Section 9.03 shall first be applied to the payment of interest accrued on the principal of Outstanding Bonds; and

Third: To the payment of the remainder, if any, to the Company or to whomsoever may be lawfully entitled to receive the same or as a court of competent jurisdiction may direct.

SECTION 9.05. Trustee May File Proofs of Claim.

In case of the pendency of any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding relative to the Company or any other obligor upon the Bonds or the property of the Company or of such other obligor or their creditors, the Trustee (irrespective of whether the principal of the Bonds shall then be due and payable as therein expressed or by declaration or otherwise and irrespective of whether the Trustee shall have made any demand on the Company for the payment of overdue principal or interest) shall be entitled and empowered, by intervention in such proceeding or otherwise,

(a) to file and prove a claim for the whole amount of principal, premium, if any, and interest, if any, owing and unpaid in respect of the Bonds and to file such other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for amounts due to the Trustee under Section 10.07) and of the Holders allowed in such judicial proceeding, and

(b) to collect and receive any moneys or other property payable or deliverable on any such claims and to distribute the same;

and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Holder to make such payments to the Trustee and, in the event that the Trustee shall consent to the making of such payments directly to the Holders, to pay to the Trustee any amounts due it under Section 10.07.

Nothing herein contained shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder any plan of reorganization, arrangement, adjustment or composition affecting the Bonds or the rights of any Holder thereof or to authorize the Trustee to vote in respect of the claim of any Holder in any such proceeding.

SECTION 9.06. Trustee May Enforce Claims Without Possession of Bonds.

All rights of action and claims under this Indenture or on the Bonds may be prosecuted and enforced by the Trustee without the possession of any of the Bonds or the production thereof in

any proceeding relating thereto, and any such proceeding instituted by the Trustee shall be brought in its own name as trustee of an express trust, and any recovery of judgment shall, after provision for the payment of the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, be for the ratable benefit of the Holders in respect of which such judgment has been recovered.

SECTION 9.07. Limitation on Suits.

No Holder shall have any right to institute any proceeding, judicial or otherwise, with respect to this Indenture, or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless:

- (a) such Holder shall have previously given written notice to the Trustee of a continuing Event of Default;
- (b) the Holders of at least thirty-three percent (33%) in aggregate principal amount of the Bonds then Outstanding shall have made written request to the Trustee to institute proceedings in respect of such Event of Default in its own name as Trustee hereunder;
- (c) such Holder or Holders shall have offered to the Trustee reasonable indemnity against the costs, expenses and liabilities to be incurred in compliance with such request;
- (d) the Trustee for sixty (60) days after its receipt of such notice, request and offer of indemnity shall have failed to institute any such proceeding; and
- (e) no direction inconsistent with such written request shall have been given to the Trustee during such sixty (60) day period by the Holders of at least a majority in aggregate principal amount of the Bonds then Outstanding;

it being understood and intended that no one or more of such Holders shall have any right in any manner whatever by virtue of, or by availing of, any provision of this Indenture to affect, disturb or prejudice the rights of any other of such Holders or to obtain or to seek to obtain priority or preference over any other of such Holders or to enforce any right under this Indenture, except in the manner herein provided and for the equal and ratable benefit of all of such Holders.

SECTION 9.08. Unconditional Right of Holders to Receive Principal, Premium and Interest.

Notwithstanding any other provision in this Indenture, the Holder of any Bond shall have the right, which is absolute and unconditional, to receive payment of the principal of and premium, if any, and (subject to Section 3.07) interest, if any, on such Bond on the Stated Maturity or Maturities expressed in such Bond (or, in the case of redemption, on the Redemption Date) and to institute suit for the enforcement of any such payment, and such rights shall not be impaired without the consent of such Holder.

SECTION 9.09. Restoration of Rights and Remedies.

If the Trustee or any Holder has instituted any proceeding to enforce any right or remedy under this Indenture and such proceeding shall have been discontinued or abandoned for any reason, or shall have been determined adversely to the Trustee or to such Holder, then and in every such case, subject to any determination in such proceeding, the Company, the Trustee and such Holder shall be restored severally and respectively to their former positions hereunder and thereafter all rights and remedies of the Trustee and such Holder shall continue as though no such proceeding had been instituted.

SECTION 9.10. Rights and Remedies Cumulative.

Except as otherwise provided in the last paragraph of Section 3.06, no right or remedy herein conferred upon or reserved to the Trustee or to the Holders is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

SECTION 9.11. Delay or Omission Not Waiver.

No delay or omission of the Trustee or of any Holder to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or an acquiescence therein. Every right and remedy given by this Article or by law to the Trustee or to the Holders may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or by the Holders, as the case may be.

SECTION 9.12. Control by Holders of Bonds.

If an Event of Default shall have occurred and be continuing, the Holders of not less than a majority in principal amount of the Bonds then Outstanding shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred on the Trustee hereunder; provided, however, that

(a) such direction shall not be in conflict with any rule of law or with this Indenture, and could not involve the Trustee in personal liability in circumstances where indemnity would not, in the Trustee's sole discretion, be adequate, and

(b) the Trustee may take any other action deemed proper by the Trustee which is not inconsistent with such direction.

SECTION 9.13. Waiver of Past Defaults.

Before a judgment or decree for payment of the money due shall have been obtained by the Trustee as in this Article provided, the Holders of not less than a majority in principal amount of the Bonds then Outstanding may on behalf of the Holders of all the Bonds then Outstanding waive any past default hereunder and its consequences, except a default

(a) in the payment of the principal of or premium, if any, or interest, if any, on any Bond Outstanding, or

(b) in respect of a covenant or provision hereof which under Section 13.02 cannot be modified or amended without the consent of the Holder of each Outstanding Bond of any series.

Upon any such waiver, such default shall cease to exist, and any and all Events of Default arising therefrom shall be deemed to have been cured, for every purpose of this Indenture; but no such waiver shall extend to any subsequent or other default or impair any right consequent thereon.

SECTION 9.14. Undertaking for Costs.

The Company and the Trustee agree, and each Holder of Bonds by its acceptance thereof shall be deemed to have agreed, that any court may in its discretion require, in any suit for the enforcement of any right or remedy under this Indenture, or in any suit against the Trustee for any action taken, suffered or omitted by it as Trustee, the filing by any party litigant in such suit of an undertaking to pay the costs of such suit, and that such court may in its discretion assess reasonable costs, including reasonable attorneys' fees, against any party litigant in such suit, having due regard to the merits and good faith of the claims or defenses made by such party litigant; but the provisions of this Section shall not apply to any suit instituted by the Company, to any suit instituted by the Trustee, to any suit instituted by any Holder, or group of Holders, holding in the aggregate more than ten percent (10%) in aggregate principal amount of the Bonds then Outstanding, or to any suit instituted by any Holder for the enforcement of the payment of the principal of or premium, if any, or interest, if any, on any Bond on or after the Stated Maturity or Maturities expressed in such Bond (or, in the case of redemption, on or after the Redemption Date).

SECTION 9.15. Waiver of Stay and Extension Laws.

The Company covenants (to the extent that it may lawfully do so) that it will not at any time insist upon, or plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay or extension law, now or hereafter in effect, in order to prevent or hinder the enforcement of this Indenture; and the Company, for itself and all who may claim under it, so far as it or they now or hereafter may lawfully do so, hereby waives the benefit of all such laws.

ARTICLE X

THE TRUSTEE

SECTION 10.01. Certain Duties and Responsibilities.

(a) Except during the continuance of an Event of Default,

(i) the Trustee undertakes to perform such duties and only such duties as are specifically set forth in this Indenture, and no implied covenants or obligations shall be read into this Indenture against the Trustee; and

(ii) in the absence of bad faith on its part, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture; but in the case of any such certificates or opinions which by any provisions hereof are specifically required to be furnished to the Trustee, the Trustee shall be under a duty to examine the same to determine whether or not they conform to the requirements of this Indenture.

(b) In case an Event of Default shall have occurred and be continuing, the Trustee shall exercise such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in their exercise, as a prudent person would exercise or use under the circumstances in the conduct of such person's own affairs.

(c) No provision of this Indenture shall be construed to relieve the Trustee from liability for its own negligent action, its own negligent failure to act, or its own willful misconduct or its own bad faith, except that:

(i) this subsection shall not be construed to limit the effect of subsection (a) of this Section;

(ii) the Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer, unless it shall be proved that the Trustee was negligent in ascertaining the pertinent facts;

(iii) the Trustee shall not be liable with respect to any action taken or omitted to be taken by it in good faith in accordance with the direction of the Holders of a majority in principal amount of the Outstanding Bonds, as provided herein, relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred upon the Trustee, under this Indenture; and

(iv) no provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it.

(d) Whether or not therein expressly so provided, every provision of this Indenture relating to the conduct or affecting the liability of or affording protection to the Trustee shall be subject to the provisions of this Section.

SECTION 10.02. Notice of Defaults.

Within ninety (90) days after the occurrence of any default hereunder of which the Trustee has received written notice, the Trustee shall transmit by mail to all Holders notice of such default hereunder known to the Trustee, unless such default shall have been cured or waived; provided, however, that, except in the case of a default in the payment of the principal of (or premium, if any) or interest, if any, on any Bond, the Trustee shall be protected in withholding such notice if and so long as the board of directors, executive committee or a trust committee of directors or a Responsible Officer of the Trustee in good faith determine that the withholding of such notice is in the interest of the Holders; provided, further, that, in the case of any default of the character

specified in Section 9.01(c), no such notice to Holders shall be given until at least sixty (60) days after the occurrence thereof. For the purpose of this Section, the term “default” means any event which is, or after notice or lapse of time or both would become, an Event of Default.

The Trustee shall not be deemed to have knowledge of any default hereunder unless and until a Responsible Officer shall have received written notice thereof at its Corporate Trust Office. In the absence of such actual knowledge or notice, the Trustee may conclusively assume that no such default has occurred and is continuing under this Indenture. Except as otherwise expressly provided herein, the Trustee shall not be bound to ascertain or inquire as to the performance or observance of any of the terms, conditions, covenants or agreements herein or of any of the documents executed in connection with Bonds issued hereunder, or as to the existence of a default or Event of Default hereunder.

SECTION 10.03. Certain Rights of Trustee.

Subject to the provisions of Section 10.01 and to the applicable provisions of the Trust Indenture Act:

- (a) the Trustee may conclusively rely and shall be fully protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, other evidence of indebtedness or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;
- (b) any request or direction of the Company mentioned herein shall be sufficiently evidenced by a Company Request or Company Order, or as otherwise expressly provided herein, and any resolution of the Board of Directors may be sufficiently evidenced by a Board Resolution;
- (c) whenever in the administration of this Indenture the Trustee shall deem it desirable that a matter be proved or established prior to taking, suffering or omitting any action hereunder, the Trustee (unless other evidence is specifically prescribed herein) may, in the absence of bad faith on its part, conclusively rely upon an Officer’s Certificate;
- (d) the Trustee may consult with counsel and the advice of such counsel or any Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon;
- (e) the Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request or direction of any Holder pursuant to this Indenture, unless such Holder shall have offered to the Trustee reasonable security or indemnity against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction;
- (f) the Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, other evidence of indebtedness or other paper or document, but the Trustee, in its discretion, may make such further inquiry or investigation into such facts or matters as it may see fit, and, if the Trustee shall determine to make such further inquiry or

investigation, it shall (subject to applicable legal requirements) be entitled to examine, during normal business hours, the books, records and premises of the Company, personally or by agent or attorney;

(g) the Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys and the Trustee shall not be responsible for any misconduct or negligence on the part of any agent or attorney appointed with due care by it hereunder;

(h) in no event shall the Trustee be responsible or liable for any failure or delay in the performance of its obligations hereunder arising out of or caused by, directly or indirectly, forces beyond its control, including, without limitation, strikes, work stoppages, accidents, acts of war or terrorism, civil or military disturbances, nuclear or natural catastrophes or acts of God, and interruptions, loss or malfunctions of utilities, communications or computer (software and hardware) services; it being understood that the Trustee shall use reasonable efforts which are consistent with accepted practices in the banking industry to resume performance as soon as practicable under the circumstances;

(i) the Trustee shall not be liable for any action taken, suffered, or omitted to be taken by it in good faith and reasonably believed by it to be authorized or within the discretion or rights or powers conferred upon it by this Indenture;

(j) in no event shall the Trustee be responsible or liable for special, indirect, punitive or consequential loss or damage of any kind whatsoever (including, but not limited to, loss of profit) irrespective of whether the Trustee has been advised of the likelihood of such loss or damage and regardless of the form of action;

(k) the rights, privileges, protections, immunities and benefits given to the Trustee, including, without limitation, its right to be indemnified, are extended to, and shall be enforceable by, the Trustee in each of its capacities hereunder, and each agent, custodian and other Person employed to act hereunder; and

(l) the Trustee may request that the Company deliver a certificate setting forth the names of individuals and/or titles of officers authorized at such time to take specified actions pursuant to this Indenture.

SECTION 10.04. Not Responsible for Recitals or Issuance of Bonds or Application of Proceeds.

The recitals contained herein and in the Bonds (except the Trustee's certificate of authentication on the Bonds) shall be taken as the statements of the Company, and neither the Trustee nor any Authenticating Agent assumes any responsibility for their correctness. The Trustee makes no representations as to the validity or genuineness of any securities at any time deposited with the Trustee hereunder, or as to the validity or sufficiency of this Indenture or of the Bonds. The Trustee shall not be accountable for the use or application by the Company of the Bonds or the proceeds thereof or of any money paid to the Company or upon Company Order under any provision hereof. Neither the Trustee nor any Authenticating Agent shall be accountable for the use or application by the Company of Bonds or the proceeds thereof.

SECTION 10.05. May Hold Bonds.

Each of the Trustee, any Authenticating Agent, any Paying Agent, any Bond Registrar or any other agent of the Company or the Trustee, in its individual or any other capacity, may become the owner or pledgee of Bonds and, subject to Sections 10.08 and 10.13, may otherwise deal with the Company with the same rights it would have if it were not such Trustee, Authenticating Agent, Paying Agent, Bond Registrar or other agent.

SECTION 10.06. Money Held in Trust.

Money held by the Trustee in trust hereunder need not be segregated from other funds, except to the extent required by law or as otherwise provided in this Indenture. The Trustee shall be under no liability for interest on or investment of any money received by it hereunder (provided that the Trustee has invested such money in accordance with a Company Order) except as expressly provided herein or otherwise agreed with, and for the sole benefit of, the Company.

SECTION 10.07. Compensation and Reimbursement.

The Company agrees

(a) to pay to the Trustee from time to time reasonable compensation for all services rendered by it hereunder (which compensation shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust);

(b) except as otherwise expressly provided herein, to reimburse the Trustee upon its request for all reasonable expenses, disbursements and advances incurred or made by the Trustee in accordance with any provision of this Indenture (including the reasonable compensation and the expenses and disbursements of its agents and counsel), except to the extent that any such expense, disbursement or advance may be attributable to its negligence, willful misconduct or bad faith; and

(c) to indemnify the Trustee (which for purposes of this Section shall include its officers, directors, employees and agents) and hold it harmless from and against any loss, liability or expense reasonably incurred without negligence, willful misconduct or bad faith on its part, arising out of or in connection with the acceptance or administration of the trust or trusts hereunder or the exercise or performance of its duties hereunder, including the costs and expenses of defending itself against any claim or liability in connection with the exercise or performance of any of its powers or duties hereunder. "Trustee" for purposes of this Section shall include any predecessor Trustee; provided, however, that the negligence, willful misconduct or bad faith of any Trustee hereunder shall not affect the rights of any other Trustee hereunder.

In addition and without prejudice to the rights provided to the Trustee under any of the provisions of this Indenture, when the Trustee incurs expenses or renders services in connection with an Event of Default specified in Section 9.01(d) or Section 9.01(e), the expenses (including the reasonable charges and expenses of its counsel) and the compensation for the services are intended to constitute expenses of administration under any applicable federal or state bankruptcy, insolvency or other similar law.

The provisions of this Section shall survive the termination of this Indenture and the resignation or removal of the Trustee.

SECTION 10.08. Disqualification; Conflicting Interests.

If the Trustee shall have or acquire any conflicting interest within the meaning of the Trust Indenture Act, it shall either eliminate such conflicting interest or resign to the extent, in the manner and with the effect, and subject to the conditions, provided in the Trust Indenture Act and this Indenture. For purposes of Section 310(b)(1) of the Trust Indenture Act and to the extent permitted thereby, the Trustee, in its capacity as trustee in respect of the Bonds of any series, shall not be deemed to have a conflicting interest arising from its capacity as trustee in respect of the Bonds of any other series.

SECTION 10.09. Corporate Trustee Required; Eligibility.

There shall at all times be a Trustee hereunder which shall be

(i) a corporation organized and doing business under the laws of the United States, any state or territory thereof or the District of Columbia, authorized under such laws to exercise corporate trust powers, having a combined capital and surplus of at least Fifty Million Dollars (\$50,000,000) and subject to supervision or examination by federal or state authority, or

(ii) if and to the extent permitted by the Commission by rule, regulation or order upon application, a corporation or other Person organized and doing business under the laws of a foreign government, authorized under such laws to exercise corporate trust powers, having a combined capital and surplus of at least Fifty Million Dollars (\$50,000,000) or the Dollar equivalent of the applicable foreign currency and subject to supervision or examination by authority of such foreign government or a political subdivision thereof substantially equivalent to supervision or examination applicable to United States institutional trustees,

and, in either case, qualified and eligible under this Article and the Trust Indenture Act. If such corporation publishes reports of condition at least annually, pursuant to law or to the requirements of such supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such corporation shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. If at any time the Trustee shall cease to be eligible in accordance with the provisions of this Section, it shall resign immediately in the manner and with the effect hereinafter specified in this Article.

SECTION 10.10. Resignation and Removal; Appointment of Successor.

(a) No resignation or removal of the Trustee and no appointment of a successor Trustee pursuant to this Article shall become effective until the acceptance of appointment by the successor Trustee in accordance with the applicable requirements of Section 10.11.

(b) The Trustee may resign at any time by giving written notice thereof to the Company. If the instrument of acceptance by a successor Trustee required by Section 10.11 shall not have been delivered to the Trustee within thirty (30) days after the giving of such notice of resignation, the

resigning Trustee may petition any court of competent jurisdiction for the appointment of a successor Trustee.

(c) The Trustee may be removed at any time on 30 days notice by Act of the Holders of a majority in principal amount of the Bonds then Outstanding delivered to the Trustee and to the Company.

(d) If at any time:

(i) the Trustee shall fail to comply with Section 10.08 after written request therefor by the Company or by any Holder who has been a bona fide Holder for at least six (6) months, or

(ii) the Trustee shall cease to be eligible under Section 10.09 or Section 310(a) of the Trust Indenture Act and shall fail to resign after written request therefor by the Company or by any such Holder, or

(iii) the Trustee shall become incapable of acting or shall be adjudged a bankrupt or insolvent or a receiver of the Trustee or of its property shall be appointed or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation,

then, in any such case, (x) the Company by a Board Resolution may remove the Trustee or (y) subject to Section 9.14, any Holder who has been a bona fide Holder for at least six (6) months may, on behalf of itself and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor Trustee or Trustees.

(e) If the Trustee shall resign, be removed or become incapable of acting, or if a vacancy shall occur in the office of Trustee for any cause (other than as contemplated in clause (y) in subsection (d) of this Section), the Company, by a Board Resolution, shall take prompt steps to appoint a successor Trustee or Trustees and shall comply with the applicable requirements of Section 10.11. If, within one (1) year after such resignation, removal or incapability, or the occurrence of such vacancy, a successor Trustee shall be appointed by Act of the Holders of a majority in principal amount of the Bonds then Outstanding delivered to the Company and the retiring Trustee, the successor Trustee so appointed shall, forthwith upon its acceptance of such appointment in accordance with the applicable requirements of Section 10.11, become the successor Trustee and to that extent supersede the successor Trustee appointed by the Company. If no successor Trustee shall have been so appointed by the Company or the Holders and accepted appointment in the manner required by Section 10.11, the Trustee or the Holders of at least ten percent (10%) in aggregate principal amount of the then Outstanding Bonds may petition any court of competent jurisdiction for the appointment of a successor Trustee.

(f) So long as no event which is, or after notice or lapse of time, or both, would become, an Event of Default shall have occurred and be continuing, if the Company shall have delivered to the Trustee (i) a Board Resolution appointing a successor Trustee, effective as of a date specified therein, and (ii) an instrument of acceptance of such appointment, effective as of such date, by such successor Trustee in accordance with Section 10.11, the Trustee shall be deemed to have resigned as contemplated in subsection (b) of this Section, the successor Trustee shall be deemed

to have been appointed pursuant to subsection (e) of this Section and such appointment shall be deemed to have been accepted as contemplated in Section 10.11, all as of such date, and all other provisions of this Section and Section 10.11 shall be applicable to such resignation, appointment and acceptance except to the extent inconsistent with this subsection (f).

(g) The Company shall give notice of each resignation and each removal of the Trustee and each appointment of a successor Trustee by mailing written notice of such event by first-class mail, postage prepaid, to all Holders as their names and addresses appear in the Bond Register or as required by applicable Depositary procedures. Each notice shall include the name of the successor Trustee and the address of its Corporate Trust Office.

SECTION 10.11. Acceptance of Appointment by Successor.

(a) In case of the appointment hereunder of a successor Trustee, every such successor Trustee so appointed shall execute, acknowledge and deliver to the Company and to the retiring Trustee an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Trustee shall become effective and such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee. Such retiring Trustee shall execute and deliver an instrument transferring to such successor Trustee all the rights, powers and trusts of the retiring Trustee and shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder.

(b) Upon request of any such successor Trustee, the Company shall execute any instruments which fully vest in and confirm to such successor Trustee all rights, powers and trusts referred to in subsection (a) of this Section.

(c) No successor Trustee shall accept its appointment unless at the time of such acceptance such successor Trustee shall be qualified and eligible under this Article.

SECTION 10.12. Merger, Conversion, Consolidation or Succession to Business.

Any corporation into which the Trustee may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Trustee shall be a party, or any corporation succeeding to all or substantially all the corporate trust business of the Trustee, shall be the successor of the Trustee hereunder, provided such corporation shall be otherwise qualified and eligible under this Article, without the execution or filing of any paper or any further act on the part of any of the parties hereto. In case any Bonds shall have been authenticated, but not delivered, by the Trustee then in office, any successor by merger, conversion or consolidation to such authenticating Trustee may adopt such authentication and deliver the Bonds so authenticated with the same effect as if such successor Trustee had itself authenticated such Bonds.

SECTION 10.13. Preferential Collection of Claims Against Company.

If the Trustee shall be or become a creditor of the Company or any other obligor upon the Bonds (other than by reason of a relationship described in Section 311(b) of the Trust Indenture Act),

the Trustee shall be subject to any and all applicable provisions of the Trust Indenture Act regarding the collection of claims against the Company or such other obligor.

SECTION 10.14. Co-Trustees and Separate Trustees.

At any time or times, for the purpose of meeting the legal requirements of any jurisdiction, the Company and the Trustee shall have power to appoint, and, upon the written request of the Trustee or of the Holders of at least thirty-three percent (33%) in principal amount of the Bonds then Outstanding, the Company shall for such purpose join with the Trustee in the execution and delivery of all instruments and agreements necessary or proper to appoint, one or more Persons approved by the Trustee and, if no Event of Default shall have occurred and be continuing, by the Company either to act as co-trustee under this Indenture, jointly with the Trustee, or to act as separate trustee under this Indenture, in either case with such powers as may be provided in the instrument of appointment, and to vest in such Person or Persons, in the capacity aforesaid, any property, title, right or power deemed necessary or desirable, subject to the other provisions of this Section. If the Company does not join in such appointment within fifteen (15) days after the receipt by it of a request so to do, or if an Event of Default shall have occurred and be continuing, the Trustee alone shall have power to make such appointment.

Should any written instrument or instruments from the Company be required by any co-trustee or separate trustee so appointed to more fully confirm to such co-trustee or separate trustee such property, title, right or power, any and all such instruments shall, on request, be executed, acknowledged and delivered by the Company.

Every co-trustee or separate trustee shall, to the extent permitted by law, but to such extent only, be appointed subject to the following conditions:

- (i) the Bonds shall be authenticated and delivered, and all rights, powers, duties and obligations hereunder in respect of the custody of securities, cash and other personal property held by the Trustee hereunder shall be exercised solely by the Trustee;
- (ii) the rights, powers, duties and obligations hereby conferred or imposed upon the Trustee shall be conferred or imposed upon and exercised or performed either by the Trustee or by the Trustee and such co-trustee or separate trustee jointly, as shall be provided in the instrument appointing such co-trustee or separate trustee, except to the extent that under any law of any jurisdiction in which any particular act is to be performed, the Trustee shall be incompetent or unqualified to perform such act, in which event such rights, powers, duties and obligations shall be exercised and performed by such co-trustee or separate trustee;
- (iii) the Trustee at any time, by an instrument in writing executed by it, with the concurrence of the Company, may accept the resignation of or remove any co-trustee or separate trustee appointed under this Section, and, if an Event of Default shall have occurred and be continuing, the Trustee shall have power to accept the resignation of, or remove, any such co-trustee or separate trustee without the concurrence of the Company. Upon the written request of the Trustee, the Company shall join with the Trustee in the execution and delivery of all instruments and agreements necessary or proper to effectuate such resignation or removal. A successor to any

co-trustee or separate trustee so resigned or removed may be appointed in the manner provided in this Section;

(iv) neither the Trustee nor any co-trustee or separate trustee hereunder shall be personally liable by reason of any act or omission of any other trustee hereunder; and

(v) any Act of Holders delivered to the Trustee shall be deemed to have been delivered to each such co-trustee and separate trustee.

SECTION 10.15. Appointment of Authenticating Agent.

The Trustee may appoint an Authenticating Agent or Agents with respect to the Bonds of one or more series, which shall be authorized to act on behalf of the Trustee to authenticate Bonds of such series issued upon original issuance, exchange, registration of transfer or partial redemption thereof or pursuant to Section 3.06, and Bonds so authenticated shall be entitled to the benefits of this Indenture and shall be valid and obligatory for all purposes as if authenticated by the Trustee hereunder. Wherever reference is made in this Indenture to the authentication and delivery of Bonds by the Trustee or the Trustee's certificate of authentication, such reference shall be deemed to include authentication and delivery on behalf of the Trustee by an Authenticating Agent and a certificate of authentication executed on behalf of the Trustee by an Authenticating Agent. Each Authenticating Agent shall be acceptable to the Company and shall at all times be a corporation organized and doing business under the laws of the United States, any state or territory thereof or the District of Columbia or the Commonwealth of Puerto Rico, authorized under such laws to act as Authenticating Agent, having a combined capital and surplus of not less than Fifty Million Dollars (\$50,000,000) and subject to supervision or examination by federal or state authority. If such Authenticating Agent publishes reports of condition at least annually, pursuant to law or to the requirements of said supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such Authenticating Agent shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. If at any time an Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section, such Authenticating Agent shall resign immediately in the manner and with the effect specified in this Section.

Any corporation into which an Authenticating Agent may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which such Authenticating Agent shall be a party, or any corporation succeeding to all or substantially all of the corporate agency or corporate trust business of an Authenticating Agent, shall continue to be an Authenticating Agent, provided such corporation shall be otherwise eligible under this Section, without the execution or filing of any paper or any further act on the part of the Trustee or the Authenticating Agent.

An Authenticating Agent may resign at any time by giving written notice thereof to the Trustee and to the Company. The Trustee may at any time terminate the agency of an Authenticating Agent by giving written notice thereof to such Authenticating Agent and to the Company. Upon receiving such a notice of resignation or upon such a termination, or in case at any time such Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section, the Trustee may appoint a successor Authenticating Agent which shall be acceptable to the

Company. Any successor Authenticating Agent upon acceptance of its appointment hereunder shall become vested with all the rights, powers and duties of its predecessor hereunder, with like effect as if originally named as an Authenticating Agent. No successor Authenticating Agent shall be appointed unless eligible under the provisions of this Section.

The Company agrees to pay to each Authenticating Agent from time to time reasonable compensation for its services under this Section.

The provisions of Sections 3.03, 10.04 and 10.05 shall be applicable to each Authenticating Agent.

If an appointment with respect to the Bonds of one or more series shall be made pursuant to this Section, the Bonds of such series may have endorsed thereon, in addition to the Trustee's certificate of authentication, an alternate certificate of authentication substantially in the following form:

This is one of the Bonds of the series designated therein referred to in the within-mentioned Indenture.

_____, as Trustee

By _____
As Authenticating Agent

By _____
Authorized Officer

ARTICLE XI

LISTS OF HOLDERS; REPORTS BY TRUSTEE AND COMPANY

SECTION 11.01. Lists of Holders.

Semiannually, not less than forty-five (45) days nor more than sixty (60) days after June 1 and December 1 in each year, commencing 2018, and at such other times as the Trustee may request in writing, the Company shall furnish or cause to be furnished to the Trustee, information as to the names and addresses of the Holders as of a date no more than fifteen (15) days prior to the date such information is so furnished, and the Trustee shall preserve such information and similar information received by it in any other capacity and afford to the Holders access to information so preserved by it, all to such extent, if any, and in such manner as shall be required by the Trust Indenture Act; provided, however, that no such list need be furnished so long as the Trustee shall be the Bond Registrar.

SECTION 11.02. Reports by Trustee and Company.

The Trustee shall transmit to the Holders, the Commission and each securities exchange upon which any Bonds are listed, and the Company shall file with the Trustee (within thirty (30) days

after filing with the Commission in the case of reports which pursuant to the Trust Indenture Act must be filed with the Commission and furnished to the Trustee) and cause to be transmitted to Holders, such other information, reports and other documents, if any, at such times and in such manner, as shall be required by the Trust Indenture Act; provided, however, that the electronic filing with the Commission through the Commission's Electronic Data Gathering, Analysis and Retrieval System (or any successor system providing for free public access to such filings) shall satisfy the Company's obligation to provide such reports, information and documents to the Trustee and the Holders.

Delivery of such reports, information and documents to the Trustee is for informational purposes only and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of its covenants hereunder (as to which the Trustee is entitled to rely exclusively on Officers' Certificates).

ARTICLE XII

CONSOLIDATION, MERGER, CONVEYANCE OR OTHER TRANSFER

SECTION 12.01. Company May Consolidate, etc., Only on Certain Terms.

The Company shall not consolidate with or merge with or into any other Person, or convey, or otherwise transfer, or lease, all or substantially all of the Principal Property to any Person, unless:

(a) the Person formed by such consolidation or into which the Company is merged or the Person which acquires by conveyance or other transfer, or which leases, all or substantially all of the Principal Property shall be a corporation, shall be organized and existing under the laws of the United States, any state thereof or the District of Columbia (such corporation being hereinafter sometimes called the "Successor Corporation") and shall execute and deliver to the Trustee an indenture supplemental hereto, in form reasonably satisfactory to the Trustee, which in the case of a consolidation, merger, conveyance or other transfer, or in the case of a lease if the term thereof extends beyond the last Stated Maturity of the Bonds then Outstanding, contains an assumption by the Successor Corporation of the due and punctual payment of the principal of and premium, if any, and interest, if any, on all the Bonds then Outstanding and the performance and observance of every covenant and condition of this Indenture to be performed or observed by the Company, and

(b) in the case of a lease, such lease shall be made expressly subject to termination by the Company or by the Trustee at any time during the continuance of an Event of Default, and

(c) immediately after giving effect to such transaction and treating any indebtedness which becomes an obligation of the Company as a result of such transaction as having been incurred by the Company at the time of such transaction, no Default or Event of Default shall have occurred and be continuing; and

(d) the Company has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that the merger, consolidation, conveyance, lease or transfer, as the case may be,

fully complies with all provisions of this Indenture; provided, however, that the delivery of such an Officer's Certificate and Opinion of Counsel shall not be required with respect to any merger, consolidation, conveyance, transfer or lease between the Company and any of its wholly-owned Subsidiaries.

Notwithstanding the foregoing, the Company may merge or consolidate with or transfer all or substantially all of its assets to an Affiliate that has no significant assets or liabilities and was formed solely for the purpose of changing the jurisdiction of organization of the Company or the form of organization of the Company or for the purpose of forming a holding company; provided that the amount of indebtedness of the Company is not increased thereby; and provided, further that the successor assumes all obligations of the Company under this Indenture.

SECTION 12.02. Successor Corporation Substituted.

Upon any consolidation or merger or any conveyance or other transfer of all or substantially all of the Principal Property in accordance with Section 12.01, the Successor Corporation shall succeed to, and be substituted for, and may exercise every power and right of, the Company under this Indenture with the same effect as if such Successor Corporation had been named as the "Company" herein. Without limiting the generality of the foregoing, the Successor Corporation may execute and deliver to the Trustee, and thereupon the Trustee shall authenticate and deliver, Bonds in accordance with the provisions hereof.

All Bonds so executed by the Successor Corporation, and authenticated and delivered by the Trustee, shall in all respects be entitled to the benefits of this Indenture equally and ratably with all Bonds executed, authenticated and delivered prior to the time such consolidation, merger, conveyance or other transfer became effective.

In case of any such consolidation, merger, sale, conveyance or lease, changes in phraseology and form may be made in the Bonds thereafter to be issued and the documentation thereafter to be delivered hereunder as may be appropriate to reflect such occurrence.

SECTION 12.03. Property of Successor Corporation.

Unless, in the case of a consolidation, merger, conveyance or other transfer contemplated by Section 12.01, the indenture supplemental hereto contemplated in clause (a) in Section 12.01, or any other indenture, so provides, none of the properties:

(a) owned by the Successor Corporation or any other party to such transaction (other than the Company) immediately prior to the time of effectiveness of such transaction or

(b) acquired by the Successor Corporation at or after the time of effectiveness of such transaction,

shall be or become Principal Property, except, in either case, Principal Property acquired from the Company in or as a result of such transaction and to the extent not constituting Excepted Property, improvements, extensions and additions to such Principal Property and renewals, replacements and substitutions of or for any part or parts of such Principal Property.

SECTION 12.04. Release of Company Upon Conveyance or Other Transfer.

In the case of a conveyance or other transfer to any Person or Persons as contemplated in Section 12.01, upon the satisfaction of all the conditions specified in Section 12.01, the Company (such term being used in this Section without giving effect to such transaction) shall be released and discharged from all obligations and covenants under this Indenture and on and under all Bonds then Outstanding (unless the Company shall have delivered to the Trustee an instrument in which it shall waive such release and discharge) and the Trustee shall acknowledge in writing that the Company has been so released and discharged.

SECTION 12.05. Merger Into Company.

(a) Nothing in this Indenture shall be deemed to prevent or restrict any consolidation or merger after the consummation of which the Company would be the surviving or resulting company or any conveyance or other transfer, or lease, of any part of the Principal Property which does not constitute the entirety, or substantially the entirety, thereof.

(b) Unless, in the case of a consolidation or merger described in subsection (a) of this Section, an indenture supplemental hereto shall otherwise provide, none of the properties acquired by the Company in or as a result of such transaction or any improvements, extensions or additions to such properties or any renewals, replacements or substitutions of or for any part or parts thereof shall be or become Principal Property.

ARTICLE XIII

SUPPLEMENTAL INDENTURES

SECTION 13.01. Supplemental Indentures Without Consent of Holders.

Without the consent of any Holders, the Company and the Trustee, at any time and from time to time, may enter into one or more indentures supplemental hereto, in form reasonably satisfactory to the Trustee, for any of the following purposes:

(a) to evidence the succession of another Person to the Company and the assumption by any such successor of the covenants of the Company herein and in the Bonds, all as provided in Article XII; or

(b) to add one or more covenants of the Company or other provisions for the benefit of all Holders or for the benefit of the Holders of, or to remain in effect only so long as there shall be Outstanding, Bonds of one or more specified series; or to surrender any right or power herein conferred upon the Company; or

(c) to change or eliminate any provision of this Indenture or to add any new provision to this Indenture; provided, however, that if such change, elimination or addition shall adversely affect the interests of the Holders of Bonds of any series in any material respect, such change, elimination or addition shall become effective with respect to such series only when no Bond of such series remains Outstanding; or

- (d) to establish the form of Bonds of any series as contemplated by Section 3.02 or the Appendix; or
- (e) to evidence and provide for the acceptance of appointment hereunder by a separate or successor Trustee with respect to the Bonds of one or more series and to add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, pursuant to the requirements of Section 10.11(b); or
- (f) to provide for the procedures required to permit the Company to issue, at its option, all or any series of, the Bonds as uncertificated securities; or
- (g) to change any place or places where (1) the principal of and premium, if any, and interest, if any, on all or any series of Bonds shall be payable, (2) all or any series of Bonds may be surrendered for registration of transfer, (3) all or any series of Bonds may be surrendered for exchange and (4) notices and demands to or upon the Company in respect of all or any series of Bonds and this Indenture may be served; or
- (h) to cure any ambiguity, to correct or supplement any provision herein which may be defective or inconsistent with any other provision herein; or to make any other additions to, deletions from or other changes to the provisions under this Indenture, provided that such additions, deletions and/or other changes shall not materially adversely affect the interests of the Holders of Bonds of any series in any material respect; or to modify, eliminate or add to the provisions of this Indenture to such extent as shall be necessary to continue the qualification of this Indenture under the Trust Indenture Act, or under any similar federal statute enacted after the Issue Date, and to add to this Indenture such other provisions as may be expressly permitted by the Trust Indenture Act, excluding, however the provisions referred to in Section 316(a)(2) of the Trust Indenture Act as in effect on the Issue Date or any corresponding provision in any similar federal statute enacted after the Issue Date; or
- (i) to supplement any of the provisions of this Indenture to such extent as shall be necessary to permit or facilitate the discharge of any series of Bonds pursuant to Section 8.02; provided that any such action shall not adversely affect the interests of the Holders of Bonds of such series or any other series of Bonds in any material respect;
- (j) to comply with the rules or regulations of any securities exchange or automated quotation system on which any of the Bonds may be listed or traded or of any applicable securities depositary;
- (k) provide for the issuance of Exchange Bonds in exchange for Initial Bonds of the same series, which will have terms substantially identical in all material respects to such series of Initial Bonds (except that the transfer restrictions contained in such series of Initial Bonds will be modified or eliminated, as appropriate, and there will be no registration rights), and which will be treated, together with any outstanding Bonds of such series, as a single issue of securities; or
- (l) comply with any requirement in connection with the qualification of the Indenture under the Trust Indenture Act.

Without limiting the generality of the foregoing, if the Trust Indenture Act as in effect on the Issue Date, or at any time hereafter shall be amended and:

(x) if any such amendment shall require one or more changes to any provisions hereof or the inclusion herein of any additional provisions, or shall by operation of law be deemed to effect such changes or incorporate such provisions by reference or otherwise, this Indenture shall be deemed to have been amended so as to conform to such amendment to the Trust Indenture Act, and the Company and the Trustee may, without the consent of any Holders, enter into an indenture supplemental hereto to evidence such amendment hereof; or

(y) if any such amendment shall permit one or more changes to, or the elimination of, any provisions hereof which, as of the Issue Date or at any time hereafter, are required by the Trust Indenture Act to be contained herein or are contained herein to reflect any provisions of the Trust Indenture Act as in effect at such date, this Indenture shall be deemed to have been amended to effect such changes or elimination, and the Company and the Trustee may, without the consent of any Holders, enter into an indenture supplemental hereto to amend this Indenture to effect such changes or elimination.

SECTION 13.02. Supplemental Indentures With Consent of Holders.

Subject to the provisions of Section 13.01, with the consent of the Holders of not less than a majority in aggregate principal amount of the Bonds of all series then Outstanding under this Indenture, considered as one class, by Act of said Holders delivered to the Company and the Trustee, the Company and the Trustee may enter into an indenture or indentures supplemental hereto for the purpose of adding any provisions to, or changing in any manner or eliminating any of the provisions of, this Indenture; provided, however, that if there shall be Bonds of more than one series Outstanding hereunder and if a proposed supplemental indenture shall directly affect the rights of the Holders of Bonds of one or more, but less than all, of such series, then the consent only of the Holders of not less than a majority in aggregate principal amount of the Outstanding Bonds of all series so directly affected, considered as one class, shall be required; and provided, further, that no such supplemental indenture shall, without the consent of the Holder of each Outstanding Bond of each series so directly affected:

(a) change the Stated Maturity of the principal of, or any installment of principal of or interest on, any Bond, or reduce the principal amount thereof or the rate of interest thereon (or the amount of any installment of interest thereon) or change the method of calculating such rate or reduce any premium payable thereon, or change the coin or currency (or other property), in which any Bond or premium, if any, or interest, if any, thereon is payable, or impair the right to institute suit for the enforcement of any such payment on or after the Maturity of any Bond, without, in any such case, the consent of the Holder of such Bond; or

(b) reduce the percentage in principal amount of the Outstanding Bonds of any series, the consent of the Holders of which is required for any such supplemental indenture, or the consent of the Holders of which is required for any waiver of compliance with any provision of this Indenture or of any default hereunder and its consequences, or reduce the requirements of Section 14.04 for quorum or voting; or

(c) modify any of the provisions of this Section, Section 7.05 or Section 9.13 with respect to the Bonds of any series (except to increase the percentages in principal amount referred to in this Section or such other Sections or to provide that other provisions of this Indenture cannot be modified or waived without the consent of the Holders of all Bonds of such series) without, in any such case, the consent of the Holder of each Outstanding Bond of such series; provided, however, that this clause shall not be deemed to require the consent of any Holder with respect to changes in the references to “the Trustee” and concomitant changes in this Section, or the deletion of this proviso, in accordance with the requirements of Section 13.01(e).

A supplemental indenture which (x) changes or eliminates any covenant or other provision of this Indenture which has expressly been included solely for the benefit of the Holders of, or which is to remain in effect only so long as there shall be Outstanding, Bonds of one or more specified series, or (y) modifies the rights of the Holders of Bonds of such series with respect to such covenant or other provision, shall be deemed not to affect the rights under this Indenture of the Holders of Bonds of any other series.

It shall not be necessary for any Act of Holders under this Section to approve the particular form of any proposed supplemental indenture, but it shall be sufficient if such Act shall approve the substance thereof.

SECTION 13.03. Execution of Supplemental Indentures.

In executing, or accepting the additional trusts created by, any supplemental indenture permitted by this Article or the modifications thereby of the trusts created by this Indenture, the Trustee shall be entitled to receive, and (subject to Section 10.01) shall be fully protected in relying upon, an Opinion of Counsel and Officer’s Certificate stating that the execution of such supplemental indenture is authorized or permitted by this Indenture and all conditions precedent to the execution of such supplemental indenture have been complied with. The Trustee may, but shall not be obligated to, enter into any such supplemental indenture which affects the Trustee’s own rights, duties, immunities or liabilities under this Indenture or otherwise.

SECTION 13.04. Effect of Supplemental Indentures.

Upon the execution and delivery of any supplemental indenture under this Article, this Indenture shall be modified in accordance therewith, and such supplemental indenture shall form a part of this Indenture for all purposes; and every Holder of Bonds theretofore or thereafter authenticated and delivered hereunder shall be bound thereby. Any supplemental indenture permitted by this Article may restate this Indenture in its entirety, and, upon the execution and delivery thereof, any such restatement shall supersede this Indenture as theretofore in effect for all purposes.

SECTION 13.05. Conformity With Trust Indenture Act.

Every supplemental indenture executed pursuant to this Article shall conform to the requirements of the Trust Indenture Act.

SECTION 13.06. Reference in Bonds to Supplemental Indentures.

Bonds of any series, authenticated and delivered after the execution of any supplemental indenture pursuant to this Article may, and shall if required by the Trustee, bear a notation in form approved by the Trustee as to any matter provided for in such supplemental indenture. If the Company shall so determine, new Bonds of any series so modified as to conform, in the opinion of the Trustee and the Company, to any such supplemental indenture may be prepared and executed by the Company and authenticated and delivered by the Trustee in exchange for Outstanding Bonds of such series.

SECTION 13.07. Modification Without Supplemental Indenture.

To the extent, if any, that the terms of any particular series of Bonds shall have been established, and not in a supplemental indenture, additions to, changes in or the elimination of any of such terms may be effected by means of a supplemental Board Resolution or a supplemental Officer's Certificate, as the case may be, delivered to, and accepted by, the Trustee; provided, however, that such supplemental Board Resolution or supplemental Officer's Certificate shall not be accepted by the Trustee or otherwise be effective unless all conditions set forth in this Indenture which would be required to be satisfied if such additions, changes or elimination were contained in a supplemental indenture shall have been appropriately satisfied, as evidenced by an Opinion of Counsel and Officer's Certificate delivered to the Trustee. Upon the acceptance thereof by the Trustee, any such supplemental Board Resolution or supplemental Officer's Certificate shall be deemed to be a "supplemental indenture" for purposes of Section 13.04 and 13.06.

ARTICLE XIV

MEETINGS OF HOLDERS; ACTION WITHOUT MEETING

SECTION 14.01. Purposes for Which Meetings May Be Called.

A meeting of Holders of Bonds of one or more, or all, series may be called at any time and from time to time pursuant to this Article to make, give or take any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be made, given or taken by Holders of Bonds of such series.

SECTION 14.02. Call, Notice and Place of Meetings.

(a) The Trustee may at any time call a meeting of Holders of Bonds of one or more, or all, series, for any purpose specified in Section 14.01, to be held at such time and (except as provided in subsection (b) of this Section) at such place as the Trustee shall determine with the approval of the Company. Notice of every such meeting, setting forth the time and the place of such meeting and in general terms the action proposed to be taken at such meeting, shall be given, in the manner provided in Section 1.06, not less than twenty-one (21) nor more than one hundred eighty (180) days prior to the date fixed for the meeting.

(b) The Trustee may be asked to call a meeting of the Holders of Bonds of one or more, or all, series, by the Company or by the Holders of at least twenty-five percent (25%) in aggregate

principal amount of all of such series, considered as one class, for any purpose specified in Section 14.01, by written request setting forth in reasonable detail the action proposed to be taken at the meeting. If the Trustee shall have been asked by the Company to call such a meeting, the Company shall determine the time and place for such meeting and may call such meeting by giving notice thereof in the manner provided in subsection (a) of this Section, or shall direct the Trustee, in the name and at the expense of the Company, to give such notice. If the Trustee shall have been asked to call such a meeting by Holders in accordance with this subsection (b), and the Trustee shall not have given the notice of such meeting within twenty-one (21) days after receipt of such request or shall not thereafter proceed to cause the meeting to be held as provided herein, then the Holders of Bonds of such series, in the principal amount above specified, may determine the time and the place for such meeting, such place to be approved by the Company, and may call such meeting for such purposes by giving notice thereof as provided in subsection (a) of this Section.

(c) Any meeting of Holders of Bonds of one or more, or all, series, shall be valid without notice if the Holders of all Outstanding Bonds of such series are present in person or by proxy and if representatives of the Company and the Trustee are present, or if notice is waived in writing before or after the meeting by the Holders of all Outstanding Bonds of such series, or by such of them as are not present at the meeting in person or by proxy, and by the Company and the Trustee.

SECTION 14.03. Persons Entitled to Vote at Meetings.

To be entitled to vote at any meeting of Holders of Bonds of one or more, or all, series, a Person shall be (a) a Holder of one or more Outstanding Bonds of such series or (b) a Person appointed by an instrument in writing as proxy for a Holder or Holders of one or more Outstanding Bonds of such series by such Holder or Holders. The only Persons who shall be entitled to attend any meeting of Holders of Bonds of any series shall be the Persons entitled to vote at such meeting and their counsel, any representatives of the Trustee and its counsel and any representatives of the Company and its counsel.

SECTION 14.04. Quorum; Action.

The Persons entitled to vote a majority in aggregate principal amount of the Outstanding Bonds of the series with respect to which a meeting shall have been called as hereinbefore provided, considered as one class, shall constitute a quorum for a meeting of Holders of Bonds of such series; provided, however, that if any action is to be taken at such meeting which this Indenture expressly provides may be taken by the Holders of a specified percentage, which is less than a majority, in principal amount of the Outstanding Bonds of such series, considered as one class, the Persons entitled to vote such specified percentage in principal amount of the Outstanding Bonds of such series, considered as one class, shall constitute a quorum. In the absence of a quorum within one hour of the time appointed for any such meeting, the meeting shall, if convened at the request of Holders of Bonds of such series, be dissolved. In any other case the meeting may be adjourned for such period as may be determined by the chairman of the meeting prior to the adjournment of such meeting. In the absence of a quorum at any such adjourned meeting, such adjourned meeting may be further adjourned for such period as may be determined by the chairman of the meeting prior to the adjournment of such adjourned meeting. Except as

provided by Section 14.05(e), notice of the reconvening of any meeting adjourned for more than thirty (30) days shall be given as provided in Section 1.06 not less than ten (10) days prior to the date on which the meeting is scheduled to be reconvened. Notice of the reconvening of an adjourned meeting shall state expressly the percentage, as provided above, of the principal amount of the Outstanding Bonds of such series which shall constitute a quorum.

Except as limited by Section 13.02, any resolution presented to a meeting or adjourned meeting duly reconvened at which a quorum is present as aforesaid may be adopted only by the affirmative vote of the Holders of not less than a majority in aggregate principal amount of the Outstanding Bonds of the series with respect to which such meeting shall have been called, considered as one class; provided, however, that, except as so limited, any resolution with respect to any action which this Indenture expressly provides may be taken by the Holders of a specified percentage, which is less than a majority, in principal amount of the Outstanding Bonds of such series, considered as one class, may be adopted at a meeting or an adjourned meeting duly reconvened and at which a quorum is present as aforesaid by the affirmative vote of the Holders of such specified percentage in principal amount of the Outstanding Bonds of such series, considered as one class.

Any resolution passed or decision taken at any meeting of Holders of Bonds duly held in accordance with this Section shall be binding on all the Holders of Bonds of the series with respect to which such meeting shall have been held, whether or not present or represented at the meeting.

SECTION 14.05. Attendance at Meetings; Determination of Voting Rights; Conduct and Adjournment of Meetings.

(a) Attendance at meetings of Holders of Bonds may be in person or by proxy; and, to the extent permitted by law, any such proxy shall remain in effect and be binding upon any future Holder of the Bonds with respect to which it was given unless and until specifically revoked by the Holder or future Holder (except as provided in Section 1.04(g)) of such Bonds before being voted.

(b) Notwithstanding any other provisions of this Indenture, the Trustee may make such reasonable regulations as it may deem advisable for any meeting of Holders of Bonds in regard to proof of the holding of such Bonds and of the appointment of proxies and in regard to the appointment and duties of inspectors of votes, the submission and examination of proxies, certificates and other evidence of the right to vote, and such other matters concerning the conduct of the meeting as it shall deem appropriate. Except as otherwise permitted or required by any such regulations and approved by the Company, the holding of Bonds shall be proved in the manner specified in Section 1.04 and the appointment of any proxy shall be proved in the manner specified in Section 1.04. Such regulations may provide that written instruments appointing proxies, regular on their face, may be presumed valid and genuine without the proof specified in Section 1.04 or other proof.

(c) The Trustee shall, by an instrument in writing, appoint a temporary chairman of the meeting, unless the meeting shall have been called by the Company or by Holders as provided in Section 14.02(b), in which case the Company or the Holders of Bonds of the series calling the meeting, as the case may be, shall in like manner appoint a temporary chairman. A permanent chairman

and a permanent secretary of the meeting shall be elected by vote of the Persons entitled to vote a majority in aggregate principal amount of the Outstanding Bonds of all series represented at the meeting, considered as one class.

(d) At any meeting each Holder or proxy shall be entitled to one vote for each One Thousand Dollars (\$1,000) principal amount of Outstanding Bonds held or represented by such Holder; provided, however, that no vote shall be cast or counted at any meeting in respect of any Bond challenged as not Outstanding and ruled by the chairman of the meeting to be not Outstanding. The chairman of the meeting shall have no right to vote, except as a Holder of a Bond or proxy.

(e) Any meeting duly called pursuant to Section 14.02 at which a quorum is present may be adjourned from time to time by Persons entitled to vote a majority in aggregate principal amount of the Outstanding Bonds of all series represented at the meeting, considered as one class; and the meeting may be held as so adjourned without further notice.

SECTION 14.06. Counting Votes and Recording Action of Meetings.

The vote upon any resolution submitted to any meeting of Holders shall be by written ballots on which shall be subscribed the signatures of the Holders or of their representatives by proxy and the principal amounts and serial numbers of the Outstanding Bonds, of the series with respect to which the meeting shall have been called, held or represented by them. The permanent chairman of the meeting shall appoint two (2) inspectors of votes who shall count all votes cast at the meeting for or against any resolution and who shall make and file with the secretary of the meeting their verified written reports of all votes cast at the meeting. A record in duplicate of the proceedings of each meeting of Holders shall be prepared by the secretary of the meeting and there shall be attached to such record the original reports of the inspectors of votes on any vote by ballot taken thereat and affidavits by one or more persons having knowledge of the facts setting forth a copy of the notice of the meeting and showing that such notice was given as provided in Section 14.02 and, if applicable, Section 14.04. Each copy shall be signed and verified by the affidavits of the permanent chairman and secretary of the meeting and one such copy shall be delivered to the Company, and another to the Trustee to be preserved by the Trustee, the latter to have attached thereto the ballots voted at the meeting. Any record so signed and verified shall be conclusive evidence of the matters therein stated.

SECTION 14.07. Action Without Meeting.

In lieu of a vote of Holders at a meeting as hereinbefore contemplated in this Article, any request, demand, authorization, direction, notice, consent, waiver or other action may be made, given or taken by Holders by one or more written instruments as provided in Section 1.04.

ARTICLE XV

IMMUNITY OF INCORPORATORS, STOCKHOLDERS, OFFICERS AND DIRECTORS

SECTION 15.01. Liability Solely Corporate.

No recourse shall be had for the payment of the principal of or premium, if any, or interest, if any, on any Bonds, or any part thereof, or for any claim based thereon or otherwise in respect thereof, or of the indebtedness represented thereby, or upon any obligation, covenant or agreement under this Indenture or the Registration Rights Agreement, against any incorporator, stockholder, officer or director, as such, past, present or future, of the Company or of any predecessor or successor corporation (either directly or through the Company or a predecessor or successor corporation), whether by virtue of any constitutional provision, statute or rule of law or by the enforcement of any assessment or penalty or otherwise; it being expressly agreed and understood that this Indenture and all the Bonds are solely corporate obligations and that no personal liability whatsoever shall attach to, or be incurred by, any incorporator, stockholder, member, officer or director, past, present or future, of the Company or of any predecessor or successor corporation, either directly or indirectly through the Company or any predecessor or successor corporation, because of the indebtedness hereby authorized or under or by reason of any of the obligations, covenants or agreements contained in this Indenture or in any of the Bonds or to be implied herefrom or therefrom; and such personal liability, if any, is hereby expressly waived and released as a condition of, and as part of the consideration for, the execution and delivery of this Indenture and the issuance of the Bonds.

ARTICLE XVI

TAX MATTERS

SECTION 16.01. Foreign Account Tax Compliance Act (FATCA).

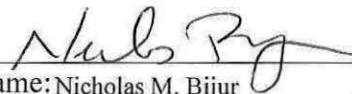
The Company agrees (i) to provide the Trustee with such reasonable information as it has in its possession to enable the Trustee to determine whether any payments pursuant to the Indenture are subject to the withholding requirements described in Section 1471(b) of the Code or otherwise imposed pursuant to Sections 1471 through 1474 of the Code and any regulations, or agreements thereunder or official interpretations thereof (“Applicable Law”), and (ii) that the Trustee shall be entitled to make any withholding or deduction from payments under the Indenture to the extent necessary to comply with Applicable Law, for which the Trustee shall not have any liability..

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed as of the day and year first above written.

**PACIFIC GAS AND ELECTRIC
COMPANY,**

by



Name: Nicholas M. Bijur

Title: Vice President and Treasurer

**THE BANK OF NEW YORK MELLON
TRUST COMPANY, N.A.,**

by

Name:

Title:

[Signature Page to the Indenture]

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed as of the day and year first above written.

PACIFIC GAS AND ELECTRIC COMPANY,

by

Name:

Title:

**THE BANK OF NEW YORK MELLON
TRUST COMPANY, N.A.,**

by



Name: R. Tarnas

Title: Vice President

APPENDIX A
RULE 144A/REGULATION S APPENDIX

PROVISIONS RELATING TO INITIAL BONDS AND EXCHANGE BONDS

1. Definitions

1.1 Definitions.

For the purposes of this Appendix the following terms shall have the meanings indicated below:

“Initial Purchasers” means (1) with respect to the Initial Bonds issued on the Issue Date, Barclays Capital Inc., Citigroup Global Markets Inc., J.P. Morgan Securities LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated, Morgan Stanley & Co. LLC, CIBC World Markets Corp., Mizuho Securities USA LLC, MUFG Securities Americas Inc., SMBC Nikko Securities America, Inc., U.S. Bancorp Investments, Inc., CastleOak Securities, L.P., Great Pacific Securities, Loop Capital Markets LLC, Samuel A. Ramirez & Company, Inc. and (2) with respect to each issuance of Additional Bonds, the Persons purchasing such Additional Bonds under the related Purchase Agreement.

“Purchase Agreement” means (1) with respect to the Initial Bonds issued on the Issue Date, the Purchase Agreement dated November 27, 2017, among the Company and the representatives of the Initial Purchasers, and (2) with respect to each issuance of additional Bonds, the purchase agreement or underwriting agreement among the Company and the Persons purchasing such additional Bonds.

“QIB” means a “qualified institutional buyer” as defined in Rule 144A under the Securities Act.

“Shelf Registration Statement” means the shelf registration statement filed by the Company in connection with the offer and sale of Initial Bonds pursuant to a Registration Rights Agreement.

“Transfer Restricted Bonds” means Bonds that bear or are required to bear the legend set forth in Section 2.3(d)(i) hereof.

“Unrestricted Bonds” means any Bonds that are not Transfer Restricted Bonds.

1.2 Other Definitions.

<u>Term</u>	<u>Defined in Section:</u>
“Regulation S”	2.1(a)
“Regulation S Global Bond”	2.1(a)
“Resale Restriction Termination Date”	2.3(d)(i)
“Restricted Global Bond”	2.1(a)
“Restricted Period”	2.1(b)
“Rule 144A”	2.1(b)
“Rule 144A Global Bond”	2.1(a)

2.

2.1 The Bonds.

(a) Form and Dating. Bonds offered and sold to persons reasonably believed to be QIBs (“Rule 144A Global Bonds”) shall be issued initially in the form of one or more permanent Global Bonds in definitive, fully registered form, and Bonds offered and sold in reliance on Regulation S under the Securities Act (“Regulation S Global Bonds”) shall be issued initially in the form of one or more permanent Global Bonds in definitive, fully registered form, in each case without interest coupons and with the Global Bonds legend, Restricted Bonds legend and, if applicable, the OID Legend, in each case as set forth in Section 2.3 (each security, unless and

until becoming an Unrestricted Bond in accordance with Section 2.3(d)(ii), a “Restricted Global Bond”), which shall be deposited on behalf of the holders of the Bonds represented thereby with the Trustee, as custodian for the Depositary (or with such other custodian as the Depositary may direct), and registered in the name of the Depositary or a nominee of the Depositary, duly executed by the Company and authenticated by the Trustee as hereinafter provided. Notwithstanding the foregoing, any Bonds offered and sold in reliance on Regulation S at such time as the Company is subject to Category 3 restrictions under Section 903 of the Securities Act shall be issued initially in the form of one or more temporary Global Bonds in fully registered form, which, after the expiration of the Restricted Period (as defined below), beneficial ownership interests therein may be exchanged for interests in a permanent Regulation S Global Bond (or a Rule 144A Global Bond) upon certification in form reasonably satisfactory to the Company and the Trustee that beneficial ownership interests in such temporary Global Bond are owned either by non-U.S. persons or U.S. persons who purchased such interests in a transaction that did not require registration under the Securities Act.

(b) Book-Entry Provisions. This Section 2.1(b) shall apply only to a Global Bond deposited with or on behalf of the Depositary.

The Company shall execute and the Trustee shall, in accordance with this Section 2.1(b), authenticate and deliver initially one or more Global Bonds that (a) shall be registered in the name of the Depositary for such Global Bond or Global Bonds or the nominee of such Depositary and (b) shall be delivered by the Trustee to such Depositary or pursuant to such Depositary’s instructions or held by the Trustee as custodian for the Depositary. If such Global Bonds are Restricted Global Bonds, then separate Global Bonds shall be issued to represent Rule 144A Global Bonds and Regulation S Global Bonds so long as required by law or the Depositary.

Except as set forth in this Section 2.1(b), beneficial interests in the Regulation S Global Bond will not be exchangeable for interests in the Rule 144A Global Bond prior to the expiration of the period through and including the 40th day after the later of the commencement of the offering of any Bonds and the closing of such offering (such period, the “Restricted Period”) and then, after the expiration of the Restricted Period, may be exchanged for interests in a Rule 144A Global Bond only upon certification in form reasonably satisfactory to the Company and the Trustee that beneficial ownership interests in such Regulation S Global Bond are owned either by non-U.S. persons or U.S. persons who purchased such interests in a transaction that did not require registration under the Securities Act.

Prior to the expiration of the Restricted Period, beneficial interests in the Regulation S Global Bond may be exchanged for beneficial interests in the Rule 144A Global Bond only if (i) such exchange occurs in connection with a transfer of the Bonds pursuant to Rule 144A under the Securities Act (“Rule 144A”), (ii) the transferor first delivers to the Trustee a written certificate (in the form provided in Exhibit 1 hereto) to the effect that the beneficial interest in the Regulation S Global Bond is being transferred to a Person who the transferor reasonably believes to be a QIB and is purchasing for its own account or the account of a QIB, in each case in a transaction meeting the requirements of Rule 144A and (iii) the transfer is in accordance with all applicable securities laws. After the expiration of the Restricted Period, such certification requirements shall not apply to such transfers of beneficial interests in a Restricted Global Bond representing Regulation S Global Bonds.

Beneficial interests in a Rule 144A Global Bond may be transferred to a Person who takes delivery in the form of an interest in the Regulation S Global Bond, whether before or after the expiration of the Restricted Period, only if the transferor first delivers to the Trustee a written certificate (in the form provided in Exhibit 1 hereto) to the effect that such transfer is being made in accordance with Rule 903 or 904 of Regulation S or Rule 144 (if available).

The aggregate principal amount of the Global Bonds may from time to time be increased or decreased by adjustments made on the records of the Trustee and the Depositary or its nominee as provided herein and in the Indenture.

(c) Certificated Bonds. Except as provided in Section 3.05 of the Indenture, owners of beneficial interests in Restricted Global Bonds shall not be entitled to receive Bonds in certificated form. Bonds in certificated form shall be exchangeable for beneficial interests in Global Bonds only as provided in Section 3.05 of the Indenture and Section 2.3 hereof.

2.2 Authentication. The Trustee shall authenticate and deliver: (1) on the Issue Date, an aggregate principal amount of \$500,000,000 Floating Rate Notes due 2018, an aggregate principal amount of \$1,150,000,000 3.30% Senior Notes due 2027 and an aggregate principal amount of \$850,000,000 3.95% Senior Notes due 2047, (2) any additional Bonds for an original issue in an aggregate principal amount specified in a Company Order pursuant to the Indenture and (3) Exchange Bonds for issue in a Registered Exchange Offer pursuant to a Registration Rights Agreement, for a like principal amount of Initial Bonds of the same series, in each case upon a Company Order, such order to specify the amount of the Bonds to be authenticated and the date on which the original issue of Bonds is to be authenticated, and, in the case of Exchange Bonds, upon receipt of a written certification contained in the letter of transmittal (or substantially similar electronic submission, including an agent's message through the Depository) for the related Registered Exchange Offer, from Persons to receive such Exchange Bonds that (x) they are not broker-dealers who acquired Bonds directly from the Company, (y) they are not participating in a distribution of the Exchange Bonds and (z) they are not affiliates (as defined in Rule 144).

2.3 Transfer and Exchange.

(a) Transfer and Exchange of Global Bonds. The transfer and exchange of Global Bonds or beneficial interests therein shall be effected through the Depository, in accordance with this Appendix and the Indenture (including applicable restrictions on transfer set forth herein, if any) and the procedures of the Depository therefor. A transferor of a beneficial interest in a Global Bond shall deliver to the Registrar a written order given in accordance with the Depository's procedures containing information regarding the participant account of the Depository to be credited with a beneficial interest in the Global Bond. The Registrar shall, in accordance with such instructions, instruct the Depository to credit to the account of the Person specified in such instructions a beneficial interest in the Global Bond and to debit the account of the Person making the transfer the beneficial interest in the Global Bond being transferred.

(i) Notwithstanding any other provisions of this Appendix, a Global Bond may not be transferred as a whole except by the Depository to a nominee of the Depository or by a nominee of the Depository to the Depository or another nominee of the Depository or by the Depository or any such nominee to a successor Depository or a nominee of such successor Depository.

(ii) In the event that a Restricted Global Bond is exchanged for Bonds in certificated form pursuant to Section 2.4(a) hereof, such Bonds may be exchanged only in accordance with such procedures as are substantially consistent with the provisions of this Section 2.3 (including the certification requirements set forth on the reverse of the Bonds intended to ensure that such transfers comply with Rule 144A or Regulation S or another applicable exemption under the Securities Act, as the case may be) and such other procedures as may from time to time be adopted by the Company.

(b) Transfer and Exchange of Bonds in Certificated Form. When Bonds in certificated form are presented to the Registrar with a request (x) to register the transfer of such certificated Bonds or (y) to exchange such certificated Bonds for an equal principal amount of certificated Bonds of other authorized denominations, the Registrar shall register the transfer or make the exchange as requested if its reasonable requirements for such transaction are met; *provided, however*, that the certificated Bonds surrendered for transfer or exchange:

(i) shall be duly endorsed or accompanied by a written instrument of transfer in form reasonably satisfactory to the Company and the Registrar, duly executed by the Holder thereof or its attorney duly authorized in writing; and

(ii) if such certificated Bonds are required to bear a Restricted Bonds legend, they are being transferred or exchanged pursuant to an effective registration statement under the Securities Act, pursuant to Section 2.3(c) or pursuant to clause (A), (B) or (C) below, and are accompanied by the following additional information and documents, as applicable:

(A) if such certificated Bonds are being delivered to the Registrar by a Holder for registration in the name of such Holder, without transfer, a certification from such

Holder to that effect; or

(B) if such certificated Bonds are being transferred to the Company or any Subsidiary thereof a certification to that effect; or

(C) if such certificated Bonds are being transferred (x) pursuant to an exemption from registration in accordance with Rule 144A, Regulation S or Rule 144 under the Securities Act; or (y) in reliance upon another exemption from the requirements of the Securities Act: (I) a certification to that effect (in the form provided in Exhibit 1 hereto) and (II) if the Company so requests, an opinion of counsel or other evidence reasonably satisfactory to it as to the compliance with the restrictions set forth in the applicable legends as set forth in Section 2.3(d).

(c) Restrictions on Transfer of a Bond in Certificated Form for a Beneficial Interest in a Global Bond. A Bond in certificated form may not be exchanged for a beneficial interest in a Rule 144A Global Bond or a Regulation S Global Bond except upon satisfaction of the requirements set forth below. Upon receipt by the Trustee of a Bond in certificated form, duly endorsed or accompanied by appropriate instruments of transfer, in form satisfactory to the Trustee, together with:

(i) certification, in the form set forth on the reverse of the Bond, that such certificated Bond is either (A) being transferred to a person reasonably believed to be a QIB in accordance with Rule 144A or (B) being transferred after expiration of the Restricted Period by a Person who initially purchased such Bond in reliance on Regulation S to a buyer who elects to hold its interest in such Bond in the form of a beneficial interest in the Regulation S Global Bond; and

(ii) written instructions directing the Trustee to make, or to direct the Bonds custodian to make, an adjustment on its books and records with respect to such Rule 144A Global Bond (in the case of a transfer pursuant to clause (c)(i)(A) of this Section 2.3) or Regulation S Global Bond (in the case of a transfer pursuant to clause (c)(i)(B) of this Section 2.3) to reflect an increase in the aggregate principal amount of the Bonds represented by the Rule 144A Global Bond or Regulation S Global Bond, as applicable, such instructions to contain information regarding the Depositary account to be credited with such increase,

then the Trustee shall cancel such certificated Bond and cause, or direct the Bonds custodian to cause, in accordance with the standing instructions and procedures existing between the Depositary and the Bonds custodian, the aggregate principal amount of Bonds represented by the Rule 144A Global Bond or Regulation S Global Bond, as applicable, to be increased by the aggregate principal amount of the certificated Bond to be exchanged and shall credit or cause to be credited to the account of the Person specified in such instructions a beneficial interest in the Rule 144A Global Bond or Regulation S Global Bond, as applicable, equal to the principal amount of the certificated Bond so canceled. If no Rule 144A Global Bonds or Regulation S Global Bonds, as applicable, are then outstanding, the Company shall issue and the Trustee shall authenticate, upon receipt of a Company Order, a new Rule 144A Global Bond or Regulation S Global Bond, as applicable, in the appropriate principal amount.

(d) Legend.

(i) Except as permitted by the following paragraph (ii) and (iii), each Bond certificate evidencing the Restricted Global Bonds (and all Bonds issued in exchange therefor or in substitution thereof) shall bear a legend in substantially the following form:

THIS BOND HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED PRIOR TO (I) THE DATE (THE "RESALE RESTRICTION TERMINATION DATE") THAT IS [IN THE CASE OF BONDS INITIALLY ISSUED TO PERSONS REASONABLY BELIEVED TO BE QUALIFIED INSTITUTIONAL BUYERS: ONE YEAR AFTER THE LAST ORIGINAL ISSUE DATE HEREOF OR SUCH SHORTER PERIOD OF TIME AS PERMITTED BY RULE 144 UNDER THE SECURITIES ACT OR ANY

SUCCESSOR PROVISION THERETO] [IN THE CASE OF A REGULATION S GLOBAL BOND: 40 DAYS AFTER THE LAST DATE OF THE ORIGINAL ISSUANCE OF THE BONDS OR SUCH SHORTER PERIOD OF TIME AS PERMITTED BY REGULATION S OR ANY SUCCESSOR PROVISION THERETO] AND (II) A LATER DATE, IF ANY, AS MAY BE REQUIRED BY APPLICABLE LAW, OTHER THAN (A)(1) TO PACIFIC GAS AND ELECTRIC COMPANY (THE "COMPANY") OR ONE OF ITS SUBSIDIARIES, (2) IN A TRANSACTION ENTITLED TO AN EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT, (3) SO LONG AS THIS BOND IS ELIGIBLE FOR RESALE PURSUANT TO RULE 144A UNDER THE SECURITIES ACT ("RULE 144A"), TO A PERSON WHOM THE SELLER REASONABLY BELIEVES IS A "QUALIFIED INSTITUTIONAL BUYER" WITHIN THE MEANING OF RULE 144A PURCHASING FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER TO WHOM NOTICE IS GIVEN THAT THE RESALE, PLEDGE OR OTHER TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A (AS INDICATED BY THE BOX CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (4) IN AN OFFSHORE TRANSACTION IN ACCORDANCE WITH RULE 903 OR RULE 904 OF REGULATION S UNDER THE SECURITIES ACT (AS INDICATED BY THE BOX CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (5) IN ACCORDANCE WITH ANOTHER APPLICABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT (AND BASED UPON AN OPINION OF COUNSEL ACCEPTABLE TO THE COMPANY) OR (6) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT AND (B) IN EACH CASE IN ACCORDANCE WITH ANY APPLICABLE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES OR IN ANY OTHER APPLICABLE JURISDICTION. THE HOLDER HEREOF, BY PURCHASING THIS BOND, REPRESENTS AND AGREES FOR THE BENEFIT OF THE COMPANY THAT IT IS (1) A QUALIFIED INSTITUTIONAL BUYER WITHIN THE MEANING OF RULE 144A OR (2) A NON-US PERSON OUTSIDE THE UNITED STATES WITHIN THE MEANING OF, OR AN ACCOUNT SATISFYING THE REQUIREMENTS OF PARAGRAPH (K)(2) OF RULE 902 UNDER, REGULATION S UNDER THE SECURITIES ACT".

Each Bond in certificated form shall also bear the following additional legend:

IN CONNECTION WITH ANY TRANSFER, THE HOLDER WILL DELIVER TO THE REGISTRAR AND TRANSFER AGENT SUCH CERTIFICATES AND OTHER INFORMATION AS SUCH TRANSFER AGENT MAY REASONABLY REQUIRE TO CONFIRM THAT THE TRANSFER COMPLIES WITH THE FOREGOING RESTRICTIONS.

Each Regulation S Global Bond shall also bear the following legend:

BY ITS ACQUISITION HEREOF, THE HOLDER HEREOF REPRESENTS THAT IT IS NOT A U.S. PERSON NOR IS IT PURCHASING FOR THE ACCOUNT OF A U.S. PERSON AND IS ACQUIRING THIS BOND IN AN OFFSHORE TRANSACTION IN ACCORDANCE WITH REGULATION S UNDER THE SECURITIES ACT.

Each temporary Regulation S Global Bond shall also bear the following legend:

THE RIGHTS ATTACHING TO THIS TEMPORARY REGULATION S GLOBAL BOND, AND THE CONDITIONS AND PROCEDURES GOVERNING (I) THE EXCHANGE OF BENEFICIAL INTERESTS IN THIS TEMPORARY REGULATION S GLOBAL BOND FOR INTERESTS IN THE REGULATION S GLOBAL BOND OR RULE 144A GLOBAL BOND AND (II) THE TRANSFER OF INTERESTS IN THIS TEMPORARY REGULATION S GLOBAL BOND, ARE AS SPECIFIED IN THE INDENTURE REFERRED TO ON THE REVERSE HEREOF.

(ii) The Company, acting in its discretion, may remove the Restricted Bonds legend set forth in paragraph (i) above from any Transfer Restricted Bond at any time on or after the Resale Restriction Termination Date applicable to such Transfer Restricted Bond. Without limiting the generality of the preceding sentence, the Company may effect such removal by issuing and delivering, in exchange for such Transfer Restricted Bond, an Unrestricted Bond without such legend, registered to the same Holder and in an equal principal amount, and upon receipt by the Trustee of a Company Order stating that the Resale Restriction Termination Date applicable to

such Transfer Restricted Bond has occurred and requesting the authentication and delivery of an Unrestricted Bond in exchange therefor given at least three Business Days in advance of the proposed date of exchange specified therein (which shall be no earlier than such Resale Restriction Termination Date), the Trustee shall authenticate and deliver such Unrestricted Bond to the Depositary or pursuant to such Depositary's instructions or hold such Bond as custodian for the Depositary and shall request the Depositary to, or, if the Trustee is custodian of such Transfer Restricted Bond, shall itself, surrender such Transfer Restricted Bond in exchange for such Unrestricted Bond without such legend and thereupon cancel such Transfer Restricted Bond so surrendered, all as directed in such order. For purposes of determining whether the Resale Restriction Termination Date has occurred with respect to any Bonds evidenced by a Transfer Restricted Bond or delivering any Company Order pursuant to this Section 2.3(d)(ii) with respect to such Bonds, (x) only those Bonds which a Principal Officer of the Company actually knows (after reasonable inquiry) to be or to have been owned by an Affiliate of the Company shall be deemed to be or to have been, respectively, owned by an Affiliate of the Company; and (y) "Principal Officer" means the principal executive officer, the principal financial officer, the treasurer or the principal accounting officer of the Company.

For purposes of this Section 2.3(d)(ii), all provisions relating to the removal of the legend set forth in paragraph (i) above shall relate, if the Resale Restriction Termination Date has occurred only with respect to a portion of the Bonds evidenced by a Transfer Restricted Bond, to such portion of the Bonds so evidenced as to which the Resale Restriction Termination Date has occurred.

Each holder of any Bonds evidenced by any Restricted Global Bond, by its acceptance thereof, (A) authorizes and consents to, (B) appoints the Company as its agent for the sole purpose of delivering such electronic messages, executing and delivering such instruments and taking such other actions, on such holder's behalf, as the Depositary or the Trustee may require to effect, and (C) upon the request of the Company, agrees to deliver such electronic messages, execute and deliver such instruments and take such other actions as the Depositary or the Trustee may require, or as shall otherwise be necessary to effect, the removal of the legend set forth in Section 2.3(d)(i) (including by means of the exchange of all or a portion of such Restricted Global Bond evidencing such Bond for a certificate evidencing such Bond that does not bear such legend) at any time after the Resale Restriction Termination Date.

(iii) Upon any sale or transfer of a Transfer Restricted Bond that is a certificated Bond pursuant to Rule 144 under the Securities Act, the Registrar shall permit the transferee thereof to exchange such Transfer Restricted Bond for a certificated Bond that does not bear the legend set forth above and rescind any restriction on the transfer of such Transfer Restricted Bond, if the transferor thereof certifies in writing to the Registrar that, and if the Company or the Trustee so request, delivers an opinion of counsel to the effect that, such sale or transfer was made in reliance on Rule 144 (such certification to be in the form provided in Exhibit 1 hereto).

(iv) Each Bond certificate evidencing the Restricted Global Bonds (and all Bonds issued in exchange therefor or in substitution thereof), shall bear a legend in substantially the following form, if required in the Company's reasonable determination (the "OID Legend"):

SOLELY FOR UNITED STATES FEDERAL INCOME TAX PURPOSES, THIS BOND WILL BE TREATED AS ISSUED WITH ORIGINAL ISSUE DISCOUNT ("OID"). UPON REQUEST, THE COMPANY WILL PROMPTLY MAKE AVAILABLE TO A HOLDER OF THIS BOND THE FOLLOWING INFORMATION: (1) THE ISSUE PRICE AND ISSUE DATE OF THIS BOND, (2) THE AMOUNT OF OID, (3) THE YIELD TO MATURITY OF THIS BOND, AND (4) ANY OTHER INFORMATION REQUIRED TO BE MADE AVAILABLE BY U.S. TREASURY REGULATIONS. HOLDERS SHOULD CONTACT THE CHIEF FINANCIAL OFFICER AT 77 BEALE STREET, SAN FRANCISCO, CA 94105.

(v) After a transfer of any Initial Bonds pursuant to and during the period of the effectiveness of a Shelf Registration Statement with respect to such Initial Bonds, an Initial Bond without restrictive transfer legends will be available to the transferee of the Holder of such Initial Bonds upon exchange of such transferring Holder's certificated Initial Bond or directions to transfer such Holder's interest in the Global Bond, as applicable.

(vi) Upon the consummation of a Registered Exchange Offer with respect to the Initial Bonds, Exchange Bonds without restrictive transfer legends will be available to Holders that exchange such Initial Bonds in such Registered Exchange Offer.

(e) Restrictions on Transfer of Temporary Regulation S Global Bonds. During the Restricted Period, beneficial ownership interests in temporary Regulation S Global Bonds may only be sold, pledged or transferred in accordance with the applicable procedures of the Depositary and only (i) to the Company, (ii) in an offshore transaction in accordance with Regulation S (other than a transaction resulting in an exchange for an interest in a Regulation S Global Bond) or (iii) pursuant to an effective registration statement under the Securities Act, in each case, in accordance with any applicable securities laws of any state of the United States.

(f) Cancellation or Adjustment of Global Bond. At such time as all beneficial interests in a Global Bond have either been exchanged for certificated Bonds, redeemed, purchased or canceled, such Global Bond shall be returned to the Company for cancellation or retained and canceled by the Trustee. At any time prior to such cancellation, if any beneficial interest in a Global Bond is exchanged for certificated Bonds, redeemed, purchased or canceled, the principal amount of Bonds represented by such Global Bond shall be reduced and an adjustment shall be made on the books and records of the Trustee (if it is then the custodian for such Global Bond) with respect to such Global Bond, by the Trustee or the custodian, to reflect such reduction.

(g) No Obligation of the Trustee. The Trustee shall have no obligation or duty to monitor, determine or inquire as to compliance with any restrictions on transfer imposed under this Appendix or the Indenture or under applicable law with respect to any transfer of any interest in any Bond (including any transfers between or among Depositary participants, members or beneficial owners in any Global Bond) other than to require delivery of such certificates and other documentation or evidence as are expressly required by, and to do so if and when expressly required by, the terms of this Appendix and the Indenture, and to examine the same to determine substantial compliance as to form with the express requirements hereof.

2.4 Certificated Bonds.

(h) A Global Bond deposited with the Depositary or with the Trustee as custodian for the Depositary pursuant to Section 2.1 shall be transferred to the beneficial owners thereof in the form of certificated Bonds in an aggregate principal amount equal to the principal amount of such Global Bond, in exchange for such Global Bond, only in circumstances pursuant to Section 3.05 of the Indenture and only if such transfer complies with Section 2.3 hereof.

(i) Any Global Bond that is transferable to the beneficial owners thereof pursuant to this Section 2.4 shall be surrendered by the Depositary or the custodian to the Trustee located at its Corporate Trust Office to be so transferred, in whole or from time to time in part, without charge, and the Trustee shall authenticate and deliver, upon such transfer of each portion of such Global Bond, an equal aggregate principal amount of certificated Bonds of authorized denominations. Any portion of a Global Bond transferred pursuant to this Section 2.4 shall be executed, authenticated and delivered only in denominations equal to \$100,000 or an integral multiple of \$1,000 in excess thereof, and registered in such names as the Depositary shall direct. Any certificated Bond delivered in exchange for an interest in a Global Bond shall, except as otherwise provided by Section 2.3, bear the Restricted Bonds legend, certificated Bonds legend and, if applicable, the OID Legend.

(j) In no event shall beneficial interests in a temporary Regulation S Global Bond be transferred or exchanged for certificated Bonds prior to (x) the expiration of the Restricted Period and (y) the receipt by the Registrar of any certificates required pursuant to Rule 903(b)(3)(ii)(B) of Regulation S under the Securities Act.

EXHIBIT 1 TO RULE 144A/REGULATION S APPENDIX

[Face of Bond]

FORM OF BOND

THIS BOND IS A GLOBAL BOND WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY (AS DEFINED IN THE INDENTURE) OR A NOMINEE THEREOF. THIS GLOBAL BOND IS EXCHANGEABLE FOR BONDS REGISTERED IN THE NAME OF ANY PERSON OTHER THAN SUCH DEPOSITARY OR ITS NOMINEE ONLY IN LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE AND, UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR BONDS IN CERTIFICATED FORM, THIS GLOBAL BOND MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITARY TO A NOMINEE OF THE DEPOSITARY, OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANOTHER NOMINEE OF THE DEPOSITARY, OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY.

UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITARY TRUST COMPANY, A NEW YORK CORPORATION (“DTC”), TO THE COMPANY (AS DEFINED BELOW) OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY BOND ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

[Insert Restricted Bonds legend, if applicable]

[Insert Regulation S Global Bonds legend, if applicable]

[Insert temporary Regulation S Global Bonds legend, if applicable]

[Insert OID Legend, if applicable]

FORM OF FLOATING RATE SENIOR NOTES DUE NOVEMBER 28, 2018

[INSERT FORM OF BOND AND LEGENDS FROM APPENDIX AS APPROPRIATE]

THE FOLLOWING SUMMARY OF TERMS IS SUBJECT TO THE INFORMATION SET FORTH ON THE REVERSE HEREOF:

PRINCIPAL AMOUNT:
\$[•],000,000

ISSUE DATE:
November 29, 2017

INTEREST RATE:
3-month LIBOR plus 0.23% per annum

MATURITY DATE:
November 28, 2017

INTEREST PAYMENT DATES:
February 28, 2018, May 28, 2018,
August 28, 2018 and the Maturity
Date

THIS SENIOR NOTE IS A:
☒ Global Book-Entry Bond
☐ Certificated Bond

REGISTERED OWNER: Cede & Co., as
nominee of The Depository Trust Company

3-month LIBOR plus 0.23% per
annum

PACIFIC GAS AND ELECTRIC COMPANY

FLOATING RATE SENIOR NOTES DUE NOVEMBER 28, 2018

(Floating Rate)

No. [●]
CUSIP No: [●]

Principal Amount: \$[●]

PACIFIC GAS AND ELECTRIC COMPANY, a corporation duly organized and existing under the laws of the State of California (herein called the "Company," which term includes any successor Person pursuant to the applicable provisions of the Indenture hereinafter referred to), for value received, hereby promises to pay to Cede & Co., as nominee for The Depository Trust Company, or registered assigns, the Principal Amount stated above on the Maturity Date stated above, and to pay interest thereon from and including the Issue Date stated above or, in the case of a Floating Rate Senior Note due November 28, 2018 issued upon the registration of transfer or exchange, from and including the most recent Interest Payment Date to which interest has been paid or duly provided for, quarterly in arrears on the Interest Payment Dates set forth above and on the Maturity Date stated above until the principal hereof is paid or made available for payment. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this Floating Rate Senior Note due November 28, 2018 (this "Senior Note," and together with all other Floating Rate Senior Notes due November 28, 2018, the "Senior Notes") is registered at the close of business on the Regular Record Date for such interest, which shall be the 15th day preceding such Interest Payment Date, as applicable; provided, however, that interest payable at the Maturity Date will be paid to the Person to whom principal is payable. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such Regular Record Date and may either be paid to the Person in whose name this Senior Note is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Senior Notes not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of the Indenture and any securities exchange, if any, on which the Senior Notes may be listed, and upon such notice as may be required by any such exchange, all as more fully provided in said Indenture.

Payments of interest on this Senior Note will include interest accrued to but excluding the respective Interest Payment Dates. Interest payments for this Senior Note shall be computed and paid on the basis of a 360-day year and the actual days elapsed.

Payment of principal of, premium, if any, and interest on Senior Notes shall be made in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts. Payments of principal of, premium, if any, and interest on the Senior Notes represented by a Global Bond shall be made by wire transfer of immediately available funds to the Holder of such Global Bond, provided that, in the case of payments of principal and premium, if any, such Global Bond is first surrendered to the Paying Agent. If any of the Senior Notes are no longer represented by a Global Bond, (i) payments of principal, premium, if any, and interest due on the Maturity Date of such Senior Notes shall be made at the office of the Paying Agent upon surrender of such Senior Notes to the Paying Agent, and (ii) payments of interest shall be made, at the option of the Company, subject to such surrender where applicable, (A) by check mailed to the address of the Person entitled thereto as such address shall appear in the Bond Register or (B) by wire transfer to registered Holders of at least \$10,000,000 in principal amount of Senior Notes at such place and to such account at a banking institution in the United States as such Holders may designate in writing to the Trustee at least sixteen (16) days prior to the date for payment.

REFERENCE IS HEREBY MADE TO THE FURTHER PROVISIONS OF THIS SENIOR NOTE SET FORTH ON THE REVERSE HEREOF, WHICH FURTHER PROVISIONS SHALL FOR ALL PURPOSES HAVE THE SAME EFFECT AS IF SET FORTH AT THIS PLACE.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Senior Note shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purpose.

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IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____

PACIFIC GAS AND ELECTRIC COMPANY

By: _____
Name:
Title:

By: _____
Name:
Title:

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

This Senior Note is one of the Bonds of the series designated as the 2018 Notes referred to in the within-mentioned Indenture.

Dated: _____

THE BANK OF NEW YORK MELLON TRUST
COMPANY, N.A., *as Trustee*

By: _____
Authorized Signatory

Reverse of Senior Note

This Floating Rate Senior Note due November 28, 2018 is one of a duly authorized issue of Bonds of the Company, issued and issuable under the Indenture, dated as of November 29, 2017 (the “Indenture”), between the Company and The Bank of New York Mellon Trust Company, N.A., as Trustee (herein called the “Trustee,” which term includes any successor trustee under the Indenture), and reference is hereby made to the Indenture for a description of the respective rights, limitations of rights, duties and immunities of the Company, the Trustee and the Holders of Bonds thereunder and of the terms and conditions upon which Bonds are, and are to be, authenticated and delivered. This Senior Note is a Bond within the meaning of the Indenture and is designated as the Floating Rate Senior Notes due November 28, 2018, established by the Company under the Indenture. The acceptance of this Senior Note shall be deemed to constitute the consent and agreement by the Holder hereof to all of the terms and provisions of the Indenture.

The interest rate on the Senior Notes will be reset quarterly on February 28, 2018, May 28, 2018 and August 28, 2018 (each, an “Interest Reset Date”). The Senior Notes will bear interest at a per annum rate equal to three-month LIBOR (as defined below) for the applicable Interest Reset Period or Initial Interest Period (each as defined below) plus 0.23% (23 basis points). The interest rate for the Initial Interest Period will be three-month LIBOR, determined as of two London Business Days prior to the Issue Date, plus 0.23% (23 basis points) per annum, which shall be [●]%. [However, upon the occurrence or failure to occur of certain events specified in the Registration Rights Agreement, the Company shall, subject to the terms and conditions set forth in the Registration Rights Agreement, pay additional interest on the principal amount of this Note after such event occurs or fails to occur so long as such event continues or fails to occur, as the case may be. Such additional interest shall be payable in addition to any other interest payable from time to time with respect to this Note.]¹

The “Initial Interest Period” will be the period from and including the Issue Date to but excluding the initial Interest Reset Date. Thereafter, each “Interest Reset Period” will be the period from and including an Interest Reset Date to but excluding the immediately succeeding Interest Reset Date; provided that the final Interest Reset Period for the Senior Notes will be the period from and including the Interest Reset Date immediately preceding the Maturity Date of such Senior Notes to but excluding the Maturity Date.

If any Interest Reset Date would otherwise be a day that is not a Business Day, the Interest Reset Date will be postponed to the immediately succeeding day that is a Business Day, except that if that Business Day is in the immediately succeeding calendar month, the Interest Reset Date shall be the immediately preceding Business Day.

The interest rate in effect on each day will be (i) if that day is an Interest Reset Date, the interest rate determined as of the Interest Determination Date (as defined below) immediately preceding such Interest Reset Date or (ii) if that day is not an Interest Reset Date, the interest rate determined as of the Interest Determination Date immediately preceding the most recent Interest Reset Date or the Issue Date, as the case may be.

The interest rate applicable to each Interest Reset Period commencing on the related Interest Reset Date, or the Issue Date in the case of the Initial Interest Period, will be the rate determined as of the applicable Interest Determination Date. The “Interest Determination Date” will be the second London Business Day immediately preceding the Issue Date, in the case of the initial Interest Reset Period, or thereafter, will be the second London Business Day immediately preceding the applicable Interest Reset Date. With respect to any Interest Determination Date, the Calculation Agent will determine three-month LIBOR in accordance with the following provisions:

(i) LIBOR is the rate for deposits in U.S. dollars for the three-month period which appears on Reuters Screen LIBOR01 Page (as defined below) at approximately 11:00 a.m., London time, on the applicable Interest Determination Date. “Reuters Screen LIBOR01 Page” means the display designated on page “LIBOR01” on Reuters Screen (or such other page as may replace the LIBOR01 page on that service, any successor service or such other service or services as may be nominated by the British Bankers’

¹ To be included if the Note is an Initial Bond.

Association for the purpose of displaying London interbank offered rates for U.S. dollar deposits). If no rate appears on Reuters Screen LIBOR01 Page, LIBOR for such Interest Determination Date will be determined in accordance with the provisions of paragraph (ii) below.

(ii) With respect to an Interest Determination Date on which no rate appears on Reuters Screen LIBOR01 Page as of approximately 11:00 a.m., London time, on such Interest Determination Date, the Calculation Agent shall request the principal London offices of each of four major reference banks (which may include affiliates of the underwriters) in the London interbank market selected by the Company to provide the Calculation Agent with a quotation of the rate at which deposits of U.S. dollars having a three-month maturity, commencing on the second London Business Day immediately following such Interest Determination Date, are offered by it to prime banks in the London interbank market as of approximately 11:00 a.m., London time, on such Interest Determination Date in a principal amount equal to an amount of not less than U.S. \$1,000,000 that is representative for a single transaction in such market at such time. If at least two such quotations are provided, LIBOR for such Interest Determination Date will be the arithmetic mean of such quotations as calculated by the Calculation Agent. If fewer than two quotations are provided, LIBOR for such Interest Determination Date will be the arithmetic mean of the rates quoted as of approximately 11:00 a.m., New York City time, on such Interest Determination Date by three major banks (which may include affiliates of the underwriters) selected by the Company for loans in U.S. dollars to leading European banks having a three-month maturity commencing on the second London Business Day immediately following such Interest Determination Date and in a principal amount equal to an amount of not less than U.S. \$1,000,000 that is representative for a single transaction in such market at such time; provided, however, that if the banks selected as aforesaid by the Company are not quoting such rates as mentioned in this sentence, LIBOR for such Interest Determination Date will be LIBOR determined with respect to the immediately preceding Interest Determination Date.

All percentages resulting from any calculation of any interest rate for the Senior Notes will be rounded, if necessary, to the nearest one hundred thousandth of a percentage point, with five one-millionths of a percentage point rounded upward (e.g., 9.876545% (or .09876545) would be rounded to 9.87655% (or .0987655)), and all dollar amounts will be rounded to the nearest cent, with one-half cent being rounded upward.

Promptly upon such determination, the Calculation Agent will notify the Company and the Trustee (if the Calculation Agent is not the Trustee) of the interest rate for the new Interest Reset Period. Upon request of a Holder of the Senior Notes, the Calculation Agent will provide to such Holder the interest rate in effect on the date of such request and, if determined, the interest rate for the next Interest Reset Period.

All calculations made by the Calculation Agent for the purposes of calculating interest on the Senior Notes shall be conclusive and binding on the Holders of the Senior Notes and the Company, absent manifest errors.

“Business Day” means any day (1) that is not a Saturday or Sunday and that is not a day on which banking institutions are authorized or obligated by law or executive order to close in The City of New York and, for any place of payment outside of The City of New York, in such place of payment, and (2) that is also a “London Business Day”, which is a day on which dealings in deposits in U.S. dollars are transacted in the London interbank market.

Interest will be payable on February 28, 2018, May 28, 2018, August 28, 2018 and on the Maturity Date (each an “Interest Payment Date”). In the event that any date on which interest is payable on this Senior Note (other than the Maturity Date) is not a Business Day, then payment of the interest payable on such date will be made on the next succeeding day that is a Business Day (and without any interest or payment in respect of any such delay) with the same force and effect as if made on the date the payment was originally payable, except that if such Business Day is in the next succeeding calendar month, such Interest Payment Date shall be the immediately preceding Business Day. If the Maturity Date falls on a day that is not a Business Day, the payment of principal, premium, if any, and interest may be made on the next succeeding Business Day with the same force and effect as if made on the date payment was originally payable, and no interest on such payment shall accrue for the period from and after maturity.

Unless otherwise specified on the face hereof, interest payments, if any, will be the amount of interest accrued from and including the last date in respect of which interest has been paid or duly provided for (or from and including the Issue Date stated above if no interest has been paid or provided for with respect to this Senior Note) to but excluding

Ex. 1 - 7

the Interest Payment Date or the Maturity Date. Accrued interest hereon from the Issue Date stated above or from the last date to which interest hereon has been paid is calculated by multiplying the face amount hereof by an accrued interest factor. Such accrued interest factor is computed by adding the interest factor calculated for each day from the Issue Date stated above or from the last date to which interest shall have been paid, to the date for which accrued interest is being calculated. The interest factor for each day shall be computed by dividing the interest rate applicable to such day by 360. All percentages resulting from any calculation hereon will be rounded to the nearest one hundred-thousandth of a percentage point, with five-one millionths of a percentage point rounded upwards. For example, 9.876545% (or .09876545) would be rounded to 9.87655% (or .0987655). All dollar amounts used in or resulting from any calculation hereon will be rounded to the nearest cent.

The interest rate on the Senior Notes will in no event be higher than the maximum rate permitted by New York law as the same may be modified by United States law of general applicability.

This Senior Note shall not be subject to redemption prior to its Stated Maturity.

As provided in the Indenture and subject to certain limitations therein set forth, this Senior Note or any portion of the principal amount hereof will be deemed to have been paid for all purposes of the Indenture and to be no longer Outstanding thereunder, and the Company's entire indebtedness in respect thereof will be satisfied and discharged, if there has been irrevocably deposited with the Trustee or any Paying Agent (other than the Company), in trust, money in an amount which will be sufficient and/or Eligible Obligations, the principal of and interest on which when due, without regard to any reinvestment thereof, will provide moneys which, together with money, if any, deposited with or held by the Trustee or such Paying Agent, will be sufficient to pay when due the principal of and premium, if any, and interest on this Senior Note when due.

If an Event of Default shall occur and be continuing, the Trustee or the Holders of not less than 33% in aggregate principal amount of the Outstanding Bonds, considered as one class, may declare the principal amount of all Bonds then Outstanding to be due and payable immediately by notice in writing to the Company (and to the Trustee if given by Holders); provided, however, that with respect to certain Events of Default relating to bankruptcy, insolvency and similar events, the principal amount of all Bonds then Outstanding shall be due and payable immediately without further action by the Trustee or the Holders.

The Indenture permits, with certain exceptions as therein provided, the Company and the Trustee to enter into one or more supplemental indentures for the purpose of adding any provisions to, or changing in any manner or eliminating any of the provisions of, the Indenture with the consent of the Holders of not less than a majority in aggregate principal amount of the Bonds at the time Outstanding, considered as one class; provided, however, that if there shall be Bonds of more than one series Outstanding under the Indenture and if a proposed supplemental indenture shall directly affect the rights of the Holders of Bonds of one or more, but less than all, of such series, then the consent only of the Holders of a majority in aggregate principal amount of the Outstanding Bonds of all series so directly affected, considered as one class, shall be required; and provided, further, that the Indenture permits the Company and the Trustee to enter into one or more supplemental indentures for certain purposes without the consent of any Holders of Bonds. The Indenture also contains provisions permitting the Holders of a majority in aggregate principal amount of Bonds, on behalf of the Holders of all such Bonds, to waive certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Senior Note shall be conclusive and binding upon such Holder and upon all future Holders of this Senior Note and of any Senior Note issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Senior Note.

As provided in and subject to the provisions of the Indenture, the Holder of this Senior Note shall not have the right to institute any proceeding with respect to the Indenture or for the appointment of a receiver or trustee or for any other remedy thereunder, unless such Holder shall have previously given the Trustee written notice of a continuing Event of Default, the Holders of at least 33% in aggregate principal amount of the Bonds at the time Outstanding shall have made written request to the Trustee to institute proceedings in respect of such Event of Default as Trustee and offered the Trustee reasonable indemnity, and the Trustee shall not have received from the Holders of at least a majority in aggregate principal amount of Bonds at the time Outstanding a direction inconsistent with such written request, and shall have failed to institute any such proceeding for 60 days after receipt of such notice, request and offer of indemnity. The foregoing shall not apply to any suit instituted by the Holder of this Senior Note for the enforcement

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of any payment of principal hereof or any premium or interest hereon on or after the respective due dates expressed herein.

No reference herein to the Indenture and no provision of this Senior Note or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and any premium and interest on this Senior Note at the times, place and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Senior Note is registrable in the Bond Register, upon surrender of this Senior Note for registration of transfer at the office or agency of the Company in any place where the principal of and any premium and interest on this Senior Note are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company, the Trustee or the Bond Registrar, as the case may be, duly executed by the Holder hereof or such Holder's attorney duly authorized in writing, and thereupon one or more new Senior Notes of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Senior Notes are issuable only in registered form without coupons in denominations of \$100,000 and integral multiples of \$1,000 in excess thereof. As provided in the Indenture and subject to certain limitations therein set forth, Senior Notes are exchangeable for a like aggregate principal amount of Senior Notes and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

Prior to due presentment of this Senior Note for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Senior Note is registered as the owner hereof for all purposes, whether or not this Senior Note is overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

This Senior Note shall be governed by, and construed and enforced in accordance with, the laws of the State of New York without regard to the principles of conflicts of laws thereunder, except to the extent that the Trust Indenture Act shall be applicable.

As provided in the Indenture, no recourse shall be had for the payment of the principal of, premium, if any, or interest with respect to this Senior Note, or any part thereof, or for any claim based hereon or otherwise in respect hereof, or of the indebtedness represented hereby, or upon any obligation, covenant or agreement under the Indenture or the Registration Rights Agreement, against any incorporator, shareholder, officer or director, as such, past, present or future, of the Company or of any predecessor or successor corporation (either directly or through the Company or a predecessor or successor corporation), whether by virtue of any constitutional provision, statute or rule of law or by the enforcement of any assessment or penalty or otherwise; it being expressly agreed and understood that the Indenture and all the Bonds are solely corporate obligations and that any such personal liability is hereby expressly waived and released as a condition of, and as part of the consideration for, the execution of the Indenture and the issuance of this Senior Note.

All terms used in this Senior Note which are not defined herein shall have the meanings assigned to them in the Indenture.

ASSIGNMENT FORM

To assign this Security, fill in the form below:

I or we assign and transfer this Security to

(Print or type assignee's name, address and zip code)

(Insert assignee's soc. sec. or tax I.D. No.)

and irrevocably appoint _____ agent to transfer this Security on the books of the Company. The agent may substitute another to act for him.

Date: _____

Your signature: _____

Sign exactly as your name appears on the other side of this Security.

Signature Guarantee:

(Signature must be guaranteed)

Signatures must be guaranteed by an "eligible guarantor institution" meeting the requirements of the Registrar, which requirements include membership or participation in the Security Transfer Agent Medallion Program ("STAMP") or such other "signature guarantee program" as may be determined by the Registrar in addition to, or in substitution for, STAMP, all in accordance with the Securities Exchange Act of 1934, as amended.

[Include the following only if the Restricted Securities Legend is included hereon]

In connection with any transfer of any of the Securities evidenced by this certificate occurring prior to one year (or such shorter period of time as permitted by Rule 144 under the Securities Act or any successor provision thereto) after the later of the Issue Date hereof and the last date, if any, on which such Securities were owned by the Company or any Affiliate of the Company (or, in the case of Regulation S Securities, prior to the expiration of the Restricted Period), the undersigned confirms that such Securities are being transferred in accordance with their terms:

CHECK ONE BOX BELOW

- (1) ☐ to the Company or any Subsidiary thereof; or
- (2) ☐ pursuant to a registration statement which has become effective under the Securities Act of 1933, as amended (the "Securities Act"); or
- (3) ☐ for so long as the Securities are eligible for resale pursuant to Rule 144A, to a person who the undersigned reasonably believes is a "qualified institutional buyer" (as defined in Rule 144A under the Securities Act) that is purchasing for its own account or for the account of a qualified institutional buyer to whom notice is given that such transfer is being made in reliance on Rule 144A, in each case pursuant to and in compliance with Rule 144A under the Securities Act; or
- (4) ☐ pursuant to offers and sales that occur outside the United States within the meaning of Regulation S under the Securities Act in compliance with Rule 904 under the Securities Act; or
- (5) ☐ pursuant to another exemption from registration under the Securities Act.

Unless one of the boxes is checked, the Trustee will refuse to register any of the Securities evidenced by this certificate in the name of any person other than the registered holder thereof; *provided, however*, that if box (5) is checked, the Company and the Trustee shall be entitled to require, prior to registering any such transfer of the Securities, such legal opinions, certifications or other evidence as may reasonably be required in order to

determine that the proposed transfer is being made in compliance with the Securities Act and applicable state securities laws.

Signature

SCHEDULE OF EXCHANGES OF INTERESTS IN THE GLOBAL BOND

The initial principal amount of this Global Bond is \$[●]. The following increases or decreases in this Global Bond have been made:

Date of Exchange	Amount of decrease in Principal Amount of this Global Bond	Amount of increase in Principal Amount of this Global Bond	Principal Amount of this Global Bond following such decrease (or increase)	Signature of authorized officer of Trustee or Depository
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[Form of 2027 Note]

FORM OF 3.30% SENIOR NOTES DUE DECEMBER 1, 2027

[INSERT FORM OF BOND AND LEGENDS FROM APPENDIX AS APPROPRIATE]

THE FOLLOWING SUMMARY OF TERMS IS SUBJECT TO THE INFORMATION SET FORTH ON THE REVERSE HEREOF:

PRINCIPAL AMOUNT:
\$[●]

ISSUE DATE:
November 29, 2017

INTEREST RATE:
3.30% per annum

MATURITY DATE:
December 1, 2027

INTEREST PAYMENT DATES:
June 1 and December 1, commencing
June 1, 2018

THIS SENIOR NOTE IS A:
☒ Global Book-Entry Bond
☐ Certificated Bond

REGISTERED OWNER: Cede & Co., as
nominee of The Depository Trust
Company

PACIFIC GAS AND ELECTRIC COMPANY

3.30% SENIOR NOTES DUE DECEMBER 1, 2027

(Fixed Rate)

No. [●]
CUSIP No: [●]

Principal Amount: \$[●]

PACIFIC GAS AND ELECTRIC COMPANY, a corporation duly organized and existing under the laws of the State of California (herein called the “Company,” which term includes any successor Person pursuant to the applicable provisions of the Indenture hereinafter referred to), for value received, hereby promises to pay to Cede & Co., as nominee for The Depository Trust Company, or registered assigns, the Principal Amount stated above on the Maturity Date stated above, and to pay interest thereon from and including the Issue Date stated above or, in the case of a 3.30% Senior Note due December 1, 2027 issued upon the registration of transfer or exchange, from and including the most recent Interest Payment Date to which interest has been paid or duly provided for, semi-annually in arrears on the Interest Payment Dates set forth above and on the Maturity Date stated above, commencing June 1, 2018 at the rate of 3.30% per annum until the principal hereof is paid or made available for payment[; provided, however, that, upon the occurrence or failure to occur of certain events specified in the Registration Rights Agreement, the Company shall, subject to the terms and conditions set forth in the Registration Rights Agreement, pay additional interest on the principal amount of this Note after such event occurs or fails to occur so long as such event continues or fails to occur, as the case may be. Such additional interest shall be payable in addition to any other interest payable from time to time with respect to this Note]². The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this 3.30% Senior Note due December 1, 2027 (this “Senior Note,” and together with all other 3.30% Senior Notes due December 1, 2027, the “Senior Notes”) (or one or more Predecessor Bonds) is registered at the close of business on the Regular Record Date for such interest, which shall be the May 15 and November 15 preceding such Interest Payment Date; provided, however, that interest payable at the Maturity Date or on a Redemption Date will be paid to the Person to whom principal is payable. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such Regular Record Date and may either be paid to the Person in whose name this Senior Note (or one or more Predecessor Bonds) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Senior Notes not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of the Indenture and any securities exchange, if any, on which the Senior Notes may be listed, and upon such notice as may be required by any such exchange, all as more fully provided in said Indenture.

Payments of interest on this Senior Note will include interest accrued to but excluding the respective Interest Payment Dates. Interest payments for this Senior Note shall be computed and paid on the basis of the 360-day year of twelve 30-day months and will accrue from November 29, 2017 or from the most recent Interest Payment Date to which interest has been paid or duly provided for. In the event that any date on which interest is payable on this Senior Note (other than the Maturity Date) is not a Business Day then payment of the interest payable on such date will be made on the next succeeding day that is a Business Day (and without any interest or payment in respect of any such delay) with the same force and effect as if made on the date the payment was originally payable. If the Maturity Date falls on a day that is not a Business Day, the payment of principal, premium, if any, and interest may be made on the next succeeding Business Day, and no interest on such payment shall accrue for the period from and after maturity.

Payment of principal of, premium, if any, and interest on Senior Notes shall be made in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts. Payments of principal of, premium, if any, and interest on the Senior Notes represented by a Global Bond shall be made by wire transfer of immediately available funds to the Holder of such Global Bond, provided that, in the case of payments of principal and premium, if any, such Global Bond is first surrendered to the Paying Agent. If any of the Senior Notes are no longer represented by a Global Bond, (i) payments of principal, premium, if any, and interest due

² To be included if the Senior Note is an Initial Bond.

on the Maturity Date or earlier redemption of such Senior Notes shall be made at the office of the Paying Agent upon surrender of such Senior Notes to the Paying Agent, and (ii) payments of interest shall be made, at the option of the Company, subject to such surrender where applicable, (A) by check mailed to the address of the Person entitled thereto as such address shall appear in the Bond Register or (B) by wire transfer to registered Holders of at least \$10,000,000 in principal amount of Senior Notes at such place and to such account at a banking institution in the United States as such Holders may designate in writing to the Trustee at least sixteen (16) days prior to the date for payment.

REFERENCE IS HEREBY MADE TO THE FURTHER PROVISIONS OF THIS SENIOR NOTE SET FORTH ON THE REVERSE HEREOF, WHICH FURTHER PROVISIONS SHALL FOR ALL PURPOSES HAVE THE SAME EFFECT AS IF SET FORTH AT THIS PLACE.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Senior Note shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____

PACIFIC GAS AND ELECTRIC COMPANY

By: _____
Name:
Title:

By: _____
Name:
Title:

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

This Senior Note is one of the Bonds of the series designated as 2027 Notes referred to in the within-mentioned Indenture.

Dated: _____

THE BANK OF NEW YORK MELLON TRUST
COMPANY, N.A., *As Trustee*

By: _____
Authorized Signatory

Reverse of Senior Note

This 3.30% Senior Note due December 1, 2027 is one of a duly authorized issue of Bonds of the Company, issued and issuable in one or more series under the Indenture, dated as of November 29, 2017 (the “Indenture”), between the Company and The Bank of New York Mellon Trust Company, N.A., as Trustee (herein called the “Trustee,” which term includes any successor trustee under the Indenture), and reference is hereby made to the Indenture for a description of the respective rights, limitations of rights, duties and immunities of the Company, the Trustee and the Holders of Bonds thereunder and of the terms and conditions upon which Bonds are, and are to be, authenticated and delivered. This Senior Note is a Bond within the meaning of the Indenture and is designated as the 3.30% Senior Notes due December 1, 2027 established by the Company under the Indenture and initially issued in an aggregate principal amount of \$1,150,000,000 on November 29, 2017. The acceptance of this Senior Note shall be deemed to constitute the consent and agreement by the Holder hereof to all of the terms and provisions of the Indenture.

Subject to the terms and conditions of the Indenture, the Senior Notes are redeemable at the option of the Company (“Optional Redemption”), in whole or in part, (a) at any time prior to September 1, 2027 (the date that is three months prior to the Maturity Date) at a Redemption Price equal to the greater of:

(i) 100% of the principal amount of the Senior Notes to be redeemed; or

(ii) as determined by the Quotation Agent, the sum of the present values of the Remaining Scheduled Payments of principal and interest on the Senior Notes to be redeemed (not including any portion of payments of interest accrued as of the Redemption Date), calculated as if the Maturity Date of such Senior Notes was September 1, 2027 (the date that is three months prior to the Maturity Date), discounted to the Redemption Date on a semi-annual basis at the Adjusted Treasury Rate, plus 15 basis points,

plus, in either of the above cases, accrued and unpaid interest thereon to but not including the Redemption Date; and (b) at any time on or after September 1, 2027 (the date that is three months prior to the Maturity Date) at 100% of the principal amount of the Senior Notes to be redeemed, plus accrued and unpaid interest thereon to but not including the Redemption Date. For purposes of this Senior Note, “Comparable Treasury Issue” means the United States Treasury security selected by the applicable Quotation Agent as having a maturity comparable to the remaining term of this Senior Note, assuming, for such purpose, that this Senior Note matured on September 1, 2027 (the date that is three months prior to the Maturity Date)), that would be used, at the time of the selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of this Senior Note.

Interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to Holders of such Senior Notes, or one or more Predecessor Bonds, of record at the close of business on the relevant Record Dates referred to on the face hereof, all as provided in the Indenture.

In the case of an Optional Redemption, notice of redemption will be in writing and mailed first-class postage-prepaid not less than 10 days nor more than 60 days prior to the Redemption Date to each Holder of Senior Notes to be redeemed at the Holder’s registered address; provided, however, that such notice need not state the dollar amount of the Redemption Price if such dollar amount has not been determined as of the date such notice is being given to the Holders of the Senior Notes being redeemed. If money sufficient to pay the Redemption Price of all Senior Notes (or portions thereof) to be redeemed on the Redemption Date is deposited with the Paying Agent or the Trustee on or prior to the Redemption Date, from and after such Redemption Date such Senior Notes or portions thereof shall cease to bear interest. Senior Notes in denominations larger than \$2,000 in principal amount may be redeemed in part but only in integral multiples of \$1,000.

In the event of redemption of this Senior Note in part only, a new Senior Note or Senior Notes of like tenor for the unredeemed portion hereof will be issued in the name of the Holder hereof upon the surrender hereof.

As provided in the Indenture and subject to certain limitations therein set forth, this Senior Note or any portion of the principal amount hereof will be deemed to have been paid for all purposes of the Indenture and to be no longer Outstanding thereunder, and the Company's entire indebtedness in respect thereof will be satisfied and discharged, if there has been irrevocably deposited with the Trustee or any Paying Agent (other than the Company), in trust, money in an amount which will be sufficient and/or Eligible Obligations, the principal of and interest on which when due, without regard to any reinvestment thereof, will provide moneys which, together with money, if any, deposited with or held by the Trustee or such Paying Agent, will be sufficient to pay when due the principal of and premium, if any, and interest on this Senior Note when due.

If an Event of Default shall occur and be continuing, the Trustee or the Holders of not less than 33% in aggregate principal amount of the Outstanding Bonds, considered as one class, may declare the principal amount of all Bonds then Outstanding to be due and payable immediately by notice in writing to the Company (and to the Trustee if given by Holders); provided, however, that with respect to certain Events of Default relating to bankruptcy, insolvency and similar events, the principal amount of all Bonds then Outstanding shall be due and payable immediately without further action by the Trustee or the Holders.

The Indenture permits, with certain exceptions as therein provided, the Company and the Trustee to enter into one or more supplemental indentures for the purpose of adding any provisions to, or changing in any manner or eliminating any of the provisions of, the Indenture with the consent of the Holders of not less than a majority in aggregate principal amount of the Bonds at the time Outstanding, considered as one class; provided, however, that if there shall be Bonds of more than one series Outstanding under the Indenture and if a proposed supplemental indenture shall directly affect the rights of the Holders of Bonds of one or more, but less than all, of such series, then the consent only of the Holders of a majority in aggregate principal amount of the Outstanding Bonds of all series so directly affected, considered as one class, shall be required; and provided, further, that the Indenture permits the Company and the Trustee to enter into one or more supplemental indentures for certain purposes without the consent of any Holders of Bonds. The Indenture also contains provisions permitting the Holders of a majority in aggregate principal amount of Bonds, on behalf of the Holders of all such Bonds, to waive certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Senior Note shall be conclusive and binding upon such Holder and upon all future Holders of this Senior Note and of any Senior Note issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Senior Note.

As provided in and subject to the provisions of the Indenture, the Holder of this Senior Note shall not have the right to institute any proceeding with respect to the Indenture or for the appointment of a receiver or trustee or for any other remedy thereunder, unless such Holder shall have previously given the Trustee written notice of a continuing Event of Default, the Holders of at least 33% in aggregate principal amount of the Bonds at the time Outstanding shall have made written request to the Trustee to institute proceedings in respect of such Event of Default as Trustee and offered the Trustee reasonable indemnity, and the Trustee shall not have received from the Holders of at least a majority in aggregate principal amount of Bonds at the time Outstanding a direction inconsistent with such written request, and shall have failed to institute any such proceeding for 60 days after receipt of such notice, request and offer of indemnity. The foregoing shall not apply to any suit instituted by the Holder of this Senior Note for the enforcement of any payment of principal hereof or any premium or interest hereon on or after the respective due dates expressed herein.

No reference herein to the Indenture and no provision of this Senior Note or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and any premium and interest on this Senior Note at the times, place and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Senior Note is registrable in the Bond Register, upon surrender of this Senior Note for registration of transfer at the office or agency of the Company in any place where the principal of and any premium and interest on this Senior Note are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company, the Trustee or the Bond Registrar, as the case may be, duly executed by the Holder hereof or such Holder's attorney duly authorized in writing, and thereupon one or more new Senior Notes of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Senior Notes are issuable only in registered form without coupons in denominations of \$100,000 and any integral multiple of \$1,000 in excess thereof. As provided in the Indenture and subject to certain limitations therein set forth, Senior Notes are exchangeable for a like aggregate principal amount of Senior Notes and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

The Company shall not be required to execute or to provide for the registration of the transfer of or the exchange of (A) any Senior Note of this series during a period of 15 days immediately preceding the date notice is to be given identifying the serial numbers of the Senior Notes called for redemption, or (B) any Senior Note selected for redemption in whole or in part, except the unredeemed portion of any Senior Note being redeemed in part.

Prior to due presentment of this Senior Note for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Senior Note is registered as the owner hereof for all purposes, whether or not this Senior Note is overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

This Senior Note shall be governed by, and construed and enforced in accordance with, the laws of the State of New York without regard to the principles of conflicts of laws thereunder, except to the extent that the Trust Indenture Act shall be applicable.

As provided in the Indenture, no recourse shall be had for the payment of the principal of, premium, if any, or interest with respect to this Senior Note, or any part thereof, or for any claim based hereon or otherwise in respect hereof, or of the indebtedness represented hereby, or upon any obligation, covenant or agreement under the Indenture or the Registration Rights Agreement, against any incorporator, shareholder, officer or director, as such, past, present or future, of the Company or of any predecessor or successor corporation (either directly or through the Company or a predecessor or successor corporation), whether by virtue of any constitutional provision, statute or rule of law or by the enforcement of any assessment or penalty or otherwise; it being expressly agreed and understood that the Indenture and all the Bonds are solely corporate obligations and that any such personal liability is hereby expressly waived and released as a condition of, and as part of the consideration for, the execution of the Indenture and the issuance of this Senior Note.

All terms used in this Senior Note which are not defined herein shall have the meanings assigned to them in the Indenture.

ASSIGNMENT FORM

To assign this Security, fill in the form below:

I or we assign and transfer this Security to

(Print or type assignee's name, address and zip code)

(Insert assignee's soc. sec. or tax I.D. No.)

and irrevocably appoint _____ agent to transfer this Security on the books of the Company. The agent may substitute another to act for him.

Date: _____

Your signature: _____

Sign exactly as your name appears on the other side of this Security.

Signature Guarantee:

(Signature must be guaranteed)

Signatures must be guaranteed by an "eligible guarantor institution" meeting the requirements of the Registrar, which requirements include membership or participation in the Security Transfer Agent Medallion Program ("STAMP") or such other "signature guarantee program" as may be determined by the Registrar in addition to, or in substitution for, STAMP, all in accordance with the Securities Exchange Act of 1934, as amended.

[Include the following only if the Restricted Securities Legend is included hereon]

In connection with any transfer of any of the Securities evidenced by this certificate occurring prior to one year (or such shorter period of time as permitted by Rule 144 under the Securities Act or any successor provision thereto) after the later of the Issue Date hereof and the last date, if any, on which such Securities were owned by the Company or any Affiliate of the Company (or, in the case of Regulation S Securities, prior to the expiration of the Restricted Period), the undersigned confirms that such Securities are being transferred in accordance with their terms:

CHECK ONE BOX BELOW

- (1) ☐ to the Company or any Subsidiary thereof; or
- (2) ☐ pursuant to a registration statement which has become effective under the Securities Act of 1933, as amended (the "Securities Act"); or
- (3) ☐ for so long as the Securities are eligible for resale pursuant to Rule 144A, to a person who the undersigned reasonably believes is a "qualified institutional buyer" (as defined in Rule 144A under the Securities Act) that is purchasing for its own account or for the account of a qualified institutional buyer to whom notice is given that such transfer is being made in reliance on Rule 144A, in each case pursuant to and in compliance with Rule 144A under the Securities Act; or
- (4) ☐ pursuant to offers and sales that occur outside the United States within the meaning of Regulation S under the Securities Act in compliance with Rule 904 under the Securities Act; or
- (5) ☐ pursuant to another exemption from registration under the Securities Act.

Unless one of the boxes is checked, the Trustee will refuse to register any of the Securities evidenced by this certificate in the name of any person other than the registered holder thereof; *provided, however*, that if box (5) is checked, the Company and the Trustee shall be entitled to require, prior to registering any such transfer of the Securities, such legal opinions, certifications or other evidence as may reasonably be required in order to

determine that the proposed transfer is being made in compliance with the Securities Act and applicable state securities laws.

Signature

SCHEDULE OF EXCHANGES OF INTERESTS IN THE GLOBAL BOND

The initial principal amount of this Global Bond is \$[●]. The following increases or decreases in this Global Bond have been made:

Date of Exchange	Amount of decrease in Principal Amount of this Global Bond	Amount of increase in Principal Amount of this Global Bond	Principal Amount of this Global Bond following such decrease (or increase)	Signature of authorized officer of Trustee or Depository
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[Form of 2047 Note]

FORM OF 3.95% SENIOR NOTES DUE DECEMBER 1, 2047

[INSERT FORM OF BOND AND LEGENDS FROM APPENDIX AS APPROPRIATE]

THE FOLLOWING SUMMARY OF TERMS IS SUBJECT TO THE INFORMATION SET FORTH ON THE REVERSE HEREOF:

PRINCIPAL AMOUNT:
\$[●]

ISSUE DATE:
November 29, 2017

INTEREST RATE:
3.95% per annum

MATURITY DATE:
December 1, 2047

INTEREST PAYMENT DATES:
June 1 and December 1, commencing
June 1, 2018

THIS SENIOR NOTE IS A:
☒ Global Book-Entry Bond
☐ Certificated Bond

REGISTERED OWNER: Cede & Co., as
nominee of The Depository Trust
Company

PACIFIC GAS AND ELECTRIC COMPANY

3.95% SENIOR NOTES DUE DECEMBER 1, 2047

(Fixed Rate)

No. [●]
CUSIP No: [●]

Principal Amount: \$[●]

PACIFIC GAS AND ELECTRIC COMPANY, a corporation duly organized and existing under the laws of the State of California (herein called the “Company,” which term includes any successor Person pursuant to the applicable provisions of the Indenture hereinafter referred to), for value received, hereby promises to pay to Cede & Co., as nominee for The Depository Trust Company, or registered assigns, the Principal Amount stated above on the Maturity Date stated above, and to pay interest thereon from and including the Issue Date stated above or, in the case of a 3.95% Senior Note due December 1, 2047 issued upon the registration of transfer or exchange, from and including the most recent Interest Payment Date to which interest has been paid or duly provided for, semi-annually in arrears on the Interest Payment Dates set forth above and on the Maturity Date stated above, commencing June 1, 2018 at the rate of 3.95% per annum until the principal hereof is paid or made available for payment[; provided, however, that, upon the occurrence or failure to occur of certain events specified in the Registration Rights Agreement, the Company shall, subject to the terms and conditions set forth in the Registration Rights Agreement, pay additional interest on the principal amount of this Note after such event occurs or fails to occur so long as such event continues or fails to occur, as the case may be. Such additional interest shall be payable in addition to any other interest payable from time to time with respect to this Note]³. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this 3.95% Senior Note due December 1, 2047 (this “Senior Note,” and together with all other 3.95% Senior Notes due December 1, 2047, the “Senior Notes”) (or one or more Predecessor Bonds) is registered at the close of business on the Regular Record Date for such interest, which shall be the May 15 and November 15 preceding such Interest Payment Date; provided, however, that interest payable at the Maturity Date or on a Redemption Date will be paid to the Person to whom principal is payable. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such Regular Record Date and may either be paid to the Person in whose name this Senior Note (or one or more Predecessor Bonds) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Senior Notes not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of the Indenture and any securities exchange, if any, on which the Senior Notes may be listed, and upon such notice as may be required by any such exchange, all as more fully provided in said Indenture.

Payments of interest on this Senior Note will include interest accrued to but excluding the respective Interest Payment Dates. Interest payments for this Senior Note shall be computed and paid on the basis of the 360-day year of twelve 30-day months and will accrue from November 29, 2017 or from the most recent Interest Payment Date to which interest has been paid or duly provided for. In the event that any date on which interest is payable on this Senior Note (other than the Maturity Date) is not a Business Day then payment of the interest payable on such date will be made on the next succeeding day that is a Business Day (and without any interest or payment in respect of any such delay) with the same force and effect as if made on the date the payment was originally payable. If the Maturity Date falls on a day that is not a Business Day, the payment of principal, premium, if any, and interest may be made on the next succeeding Business Day, and no interest on such payment shall accrue for the period from and after maturity.

Payment of principal of, premium, if any, and interest on Senior Notes shall be made in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts. Payments of principal of, premium, if any, and interest on the Senior Notes represented by a Global Bond shall be made by wire transfer of immediately available funds to the Holder of such Global Bond, provided that, in the case of payments of principal and premium, if any, such Global Bond is first surrendered to the Paying Agent. If any of the Senior Notes are no longer represented by a Global Bond, (i) payments of principal, premium, if any, and interest due

³ To be included if the Senior Note is an Initial Bond.

on the Maturity Date or earlier redemption of such Senior Notes shall be made at the office of the Paying Agent upon surrender of such Senior Notes to the Paying Agent, and (ii) payments of interest shall be made, at the option of the Company, subject to such surrender where applicable, (A) by check mailed to the address of the Person entitled thereto as such address shall appear in the Bond Register or (B) by wire transfer to registered Holders of at least \$10,000,000 in principal amount of Senior Notes at such place and to such account at a banking institution in the United States as such Holders may designate in writing to the Trustee at least sixteen (16) days prior to the date for payment.

REFERENCE IS HEREBY MADE TO THE FURTHER PROVISIONS OF THIS SENIOR NOTE SET FORTH ON THE REVERSE HEREOF, WHICH FURTHER PROVISIONS SHALL FOR ALL PURPOSES HAVE THE SAME EFFECT AS IF SET FORTH AT THIS PLACE.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Senior Note shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____

PACIFIC GAS AND ELECTRIC COMPANY

By: _____
Name:
Title:

By: _____
Name:
Title:

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

This Senior Note is one of the Bonds of the series designated 2047 Notes referred to in the within-mentioned Indenture.

Dated: _____

THE BANK OF NEW YORK MELLON TRUST
COMPANY, N.A., *As Trustee*

By: _____
Authorized Signatory

Reverse of Senior Note

This 3.95% Senior Note due December 1, 2047 is one of a duly authorized issue of Bonds of the Company, issued and issuable in one or more series under the Indenture, dated as of November 29, 2017 (the “Indenture”), between the Company and The Bank of New York Mellon Trust Company, N.A., as Trustee (herein called the “Trustee,” which term includes any successor trustee under the Indenture), and reference is hereby made to the Indenture for a description of the respective rights, limitations of rights, duties and immunities of the Company, the Trustee and the Holders of Bonds thereunder and of the terms and conditions upon which Bonds are, and are to be, authenticated and delivered. This Senior Note is a Bond within the meaning of the Indenture and is designated as the 3.95% Senior Notes due December 1, 2047 established by the Company under the Indenture and initially issued in an aggregate principal amount of \$850,000 on November 29, 2017. The acceptance of this Senior Note shall be deemed to constitute the consent and agreement by the Holder hereof to all of the terms and provisions of the Indenture.

Subject to the terms and conditions of the Indenture, the Senior Notes are redeemable at the option of the Company (“Optional Redemption”), in whole or in part, (a) at any time prior to June 1, 2047 (the date that is six months prior to the Maturity Date) at a Redemption Price equal to the greater of:

(i) 100% of the principal amount of the Senior Notes to be redeemed; or

(ii) as determined by the Quotation Agent, the sum of the present values of the Remaining Scheduled Payments of principal and interest on the Senior Notes to be redeemed (not including any portion of payments of interest accrued as of the Redemption Date), calculated as if the Maturity Date of such Senior Notes was June 1, 2047 (the date that is six months prior to the Maturity Date), discounted to the Redemption Date on a semi-annual basis at the Adjusted Treasury Rate, plus 20 basis points,

plus, in either of the above cases, accrued and unpaid interest thereon to but not including the Redemption Date; and (b) at any time on or after June 1, 2047 (the date that is six months prior to the Maturity Date) at 100% of the principal amount of the Senior Notes to be redeemed, plus accrued and unpaid interest thereon to but not including the Redemption Date. For purposes of this Senior Note, “Comparable Treasury Issue” means the United States Treasury security selected by the applicable Quotation Agent as having a maturity comparable to the remaining term of this Senior Note, assuming, for such purpose, that this Senior Note matured on June 1, 2047 (the date that is six months prior to the Maturity Date)), that would be used, at the time of the selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of this Senior Note.

Interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to Holders of such Senior Notes, or one or more Predecessor Bonds, of record at the close of business on the relevant Record Dates referred to on the face hereof, all as provided in the Indenture.

In the case of an Optional Redemption, notice of redemption will be in writing and mailed first-class postage-prepaid not less than 10 days nor more than 60 days prior to the Redemption Date to each Holder of Senior Notes to be redeemed at the Holder’s registered address; provided, however, that such notice need not state the dollar amount of the Redemption Price if such dollar amount has not been determined as of the date such notice is being given to the Holders of the Senior Notes being redeemed. If money sufficient to pay the Redemption Price of all Senior Notes (or portions thereof) to be redeemed on the Redemption Date is deposited with the Paying Agent or the Trustee on or prior to the Redemption Date, from and after such Redemption Date such Senior Notes or portions thereof shall cease to bear interest. Senior Notes in denominations larger than \$2,000 in principal amount may be redeemed in part but only in integral multiples of \$1,000.

In the event of redemption of this Senior Note in part only, a new Senior Note or Senior Notes of like tenor for the unredeemed portion hereof will be issued in the name of the Holder hereof upon the surrender hereof.

As provided in the Indenture and subject to certain limitations therein set forth, this Senior Note or any portion of the principal amount hereof will be deemed to have been paid for all purposes of the Indenture and to be no longer Outstanding thereunder, and the Company's entire indebtedness in respect thereof will be satisfied and discharged, if there has been irrevocably deposited with the Trustee or any Paying Agent (other than the Company), in trust, money in an amount which will be sufficient and/or Eligible Obligations, the principal of and interest on which when due, without regard to any reinvestment thereof, will provide moneys which, together with money, if any, deposited with or held by the Trustee or such Paying Agent, will be sufficient to pay when due the principal of and premium, if any, and interest on this Senior Note when due.

If an Event of Default shall occur and be continuing, the Trustee or the Holders of not less than 33% in aggregate principal amount of the Outstanding Bonds, considered as one class, may declare the principal amount of all Bonds then Outstanding to be due and payable immediately by notice in writing to the Company (and to the Trustee if given by Holders); provided, however, that with respect to certain Events of Default relating to bankruptcy, insolvency and similar events, the principal amount of all Bonds then Outstanding shall be due and payable immediately without further action by the Trustee or the Holders.

The Indenture permits, with certain exceptions as therein provided, the Company and the Trustee to enter into one or more supplemental indentures for the purpose of adding any provisions to, or changing in any manner or eliminating any of the provisions of, the Indenture with the consent of the Holders of not less than a majority in aggregate principal amount of the Bonds at the time Outstanding, considered as one class; provided, however, that if there shall be Bonds of more than one series Outstanding under the Indenture and if a proposed supplemental indenture shall directly affect the rights of the Holders of Bonds of one or more, but less than all, of such series, then the consent only of the Holders of a majority in aggregate principal amount of the Outstanding Bonds of all series so directly affected, considered as one class, shall be required; and provided, further, that the Indenture permits the Company and the Trustee to enter into one or more supplemental indentures for certain purposes without the consent of any Holders of Bonds. The Indenture also contains provisions permitting the Holders of a majority in aggregate principal amount of Bonds, on behalf of the Holders of all such Bonds, to waive certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Senior Note shall be conclusive and binding upon such Holder and upon all future Holders of this Senior Note and of any Senior Note issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Senior Note.

As provided in and subject to the provisions of the Indenture, the Holder of this Senior Note shall not have the right to institute any proceeding with respect to the Indenture or for the appointment of a receiver or trustee or for any other remedy thereunder, unless such Holder shall have previously given the Trustee written notice of a continuing Event of Default, the Holders of at least 33% in aggregate principal amount of the Bonds at the time Outstanding shall have made written request to the Trustee to institute proceedings in respect of such Event of Default as Trustee and offered the Trustee reasonable indemnity, and the Trustee shall not have received from the Holders of at least a majority in aggregate principal amount of Bonds at the time Outstanding a direction inconsistent with such written request, and shall have failed to institute any such proceeding for 60 days after receipt of such notice, request and offer of indemnity. The foregoing shall not apply to any suit instituted by the Holder of this Senior Note for the enforcement of any payment of principal hereof or any premium or interest hereon on or after the respective due dates expressed herein.

No reference herein to the Indenture and no provision of this Senior Note or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and any premium and interest on this Senior Note at the times, place and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Senior Note is registrable in the Bond Register, upon surrender of this Senior Note for registration of transfer at the office or agency of the Company in any place where the principal of and any premium and interest on this Senior Note are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company, the Trustee or the Bond Registrar, as the case may be, duly executed by the Holder hereof or such Holder's attorney duly authorized in writing, and thereupon one or more new Senior Notes of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Senior Notes are issuable only in registered form without coupons in denominations of \$100,000 and any integral multiple of \$1,000 in excess thereof. As provided in the Indenture and subject to certain limitations therein set forth, Senior Notes are exchangeable for a like aggregate principal amount of Senior Notes and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

The Company shall not be required to execute or to provide for the registration of the transfer of or the exchange of (A) any Senior Note of this series during a period of 15 days immediately preceding the date notice is to be given identifying the serial numbers of the Senior Notes called for redemption, or (B) any Senior Note selected for redemption in whole or in part, except the unredeemed portion of any Senior Note being redeemed in part.

Prior to due presentment of this Senior Note for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Senior Note is registered as the owner hereof for all purposes, whether or not this Senior Note is overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

This Senior Note shall be governed by, and construed and enforced in accordance with, the laws of the State of New York without regard to the principles of conflicts of laws thereunder, except to the extent that the Trust Indenture Act shall be applicable.

As provided in the Indenture, no recourse shall be had for the payment of the principal of, premium, if any, or interest with respect to this Senior Note, or any part thereof, or for any claim based hereon or otherwise in respect hereof, or of the indebtedness represented hereby, or upon any obligation, covenant or agreement under the Indenture or the Registration Rights Agreement, against any incorporator, shareholder, officer or director, as such, past, present or future, of the Company or of any predecessor or successor corporation (either directly or through the Company or a predecessor or successor corporation), whether by virtue of any constitutional provision, statute or rule of law or by the enforcement of any assessment or penalty or otherwise; it being expressly agreed and understood that the Indenture and all the Bonds are solely corporate obligations and that any such personal liability is hereby expressly waived and released as a condition of, and as part of the consideration for, the execution of the Indenture and the issuance of this Senior Note.

All terms used in this Senior Note which are not defined herein shall have the meanings assigned to them in the Indenture.

ASSIGNMENT FORM

To assign this Security, fill in the form below:

I or we assign and transfer this Security to

(Print or type assignee's name, address and zip code)

(Insert assignee's soc. sec. or tax I.D. No.)

and irrevocably appoint _____ agent to transfer this Security on the books of the Company. The agent may substitute another to act for him.

Date: _____

Your signature: _____

Sign exactly as your name appears on the other side of this Security.

Signature Guarantee:

(Signature must be guaranteed)

Signatures must be guaranteed by an "eligible guarantor institution" meeting the requirements of the Registrar, which requirements include membership or participation in the Security Transfer Agent Medallion Program ("STAMP") or such other "signature guarantee program" as may be determined by the Registrar in addition to, or in substitution for, STAMP, all in accordance with the Securities Exchange Act of 1934, as amended.

[Include the following only if the Restricted Securities Legend is included hereon]

In connection with any transfer of any of the Securities evidenced by this certificate occurring prior to one year (or such shorter period of time as permitted by Rule 144 under the Securities Act or any successor provision thereto) after the later of the Issue Date hereof and the last date, if any, on which such Securities were owned by the Company or any Affiliate of the Company (or, in the case of Regulation S Securities, prior to the expiration of the Restricted Period), the undersigned confirms that such Securities are being transferred in accordance with their terms:

CHECK ONE BOX BELOW

- (1) ☐ to the Company or any Subsidiary thereof; or
- (2) ☐ pursuant to a registration statement which has become effective under the Securities Act of 1933, as amended (the "Securities Act"); or
- (3) ☐ for so long as the Securities are eligible for resale pursuant to Rule 144A, to a person who the undersigned reasonably believes is a "qualified institutional buyer" (as defined in Rule 144A under the Securities Act) that is purchasing for its own account or for the account of a qualified institutional buyer to whom notice is given that such transfer is being made in reliance on Rule 144A, in each case pursuant to and in compliance with Rule 144A under the Securities Act; or
- (4) ☐ pursuant to offers and sales that occur outside the United States within the meaning of Regulation S under the Securities Act in compliance with Rule 904 under the Securities Act; or
- (5) ☐ pursuant to another exemption from registration under the Securities Act.

Unless one of the boxes is checked, the Trustee will refuse to register any of the Securities evidenced by this certificate in the name of any person other than the registered holder thereof; *provided, however*, that if box (5) is checked, the Company and the Trustee shall be entitled to require, prior to registering any such transfer of the Securities, such legal opinions, certifications or other evidence as may reasonably be required in order to

determine that the proposed transfer is being made in compliance with the Securities Act and applicable state securities laws.

Signature

SCHEDULE OF EXCHANGES OF INTERESTS IN THE GLOBAL BOND

The initial principal amount of this Global Bond is \$[●]. The following increases or decreases in this Global Bond have been made:

Date of Exchange	Amount of decrease in Principal Amount of this Global Bond	Amount of increase in Principal Amount of this Global Bond	Principal Amount of this Global Bond following such decrease (or increase)	Signature of authorized officer of Trustee or Depositary
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Ex. 1 - 34

[[3688162]]

FLOATING RATE SENIOR NOTES DUE NOVEMBER 28, 2018

THIS BOND IS A GLOBAL BOND WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY (AS DEFINED IN THE INDENTURE) OR A NOMINEE THEREOF. THIS GLOBAL BOND IS EXCHANGEABLE FOR BONDS REGISTERED IN THE NAME OF ANY PERSON OTHER THAN SUCH DEPOSITARY OR ITS NOMINEE ONLY IN LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE AND, UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR BONDS IN CERTIFICATED FORM, THIS GLOBAL BOND MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITARY TO A NOMINEE OF THE DEPOSITARY, OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANOTHER NOMINEE OF THE DEPOSITARY, OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY.

UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION ("DTC"), TO THE COMPANY (AS DEFINED BELOW) OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY BOND ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

THIS BOND HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED PRIOR TO (I) THE DATE (THE "RESALE RESTRICTION TERMINATION DATE") THAT IS ONE YEAR AFTER THE LAST ORIGINAL ISSUE DATE HEREOF OR SUCH SHORTER PERIOD OF TIME AS PERMITTED BY RULE 144 UNDER THE SECURITIES ACT OR ANY SUCCESSOR PROVISION THERETO AND (II) A LATER DATE, IF ANY, AS MAY BE REQUIRED BY APPLICABLE LAW, OTHER THAN (A)(1) TO PACIFIC GAS AND ELECTRIC COMPANY (THE "COMPANY") OR ONE OF ITS SUBSIDIARIES, (2) IN A TRANSACTION ENTITLED TO AN EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT, (3) SO LONG AS THIS BOND IS ELIGIBLE FOR RESALE PURSUANT TO RULE 144A UNDER THE SECURITIES ACT ("RULE 144A"), TO A PERSON WHOM THE SELLER REASONABLY BELIEVES IS A "QUALIFIED INSTITUTIONAL BUYER" WITHIN THE MEANING OF RULE 144A PURCHASING FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER TO WHOM NOTICE IS GIVEN THAT THE RESALE, PLEDGE OR OTHER TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A (AS INDICATED BY THE BOX CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (4) IN AN OFFSHORE TRANSACTION IN ACCORDANCE WITH RULE 903 OR RULE 904 OF REGULATION S UNDER THE SECURITIES ACT (AS INDICATED BY THE BOX CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (5) IN ACCORDANCE WITH ANOTHER APPLICABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT (AND BASED UPON AN OPINION OF COUNSEL ACCEPTABLE TO THE COMPANY) OR (6) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT AND (B) IN EACH CASE IN ACCORDANCE WITH ANY APPLICABLE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES OR IN ANY OTHER APPLICABLE JURISDICTION. THE HOLDER HEREOF, BY PURCHASING THIS BOND, REPRESENTS AND AGREES FOR THE BENEFIT OF THE COMPANY THAT IT IS (1) A QUALIFIED INSTITUTIONAL BUYER WITHIN THE MEANING OF RULE 144A OR (2) A NON-US PERSON OUTSIDE THE UNITED STATES WITHIN THE MEANING OF, OR AN ACCOUNT SATISFYING THE REQUIREMENTS OF PARAGRAPH (K)(2) OF RULE 902 UNDER, REGULATION S UNDER THE SECURITIES ACT".

THE FOLLOWING SUMMARY OF TERMS IS SUBJECT TO THE INFORMATION SET FORTH ON THE REVERSE HEREOF:

PRINCIPAL AMOUNT:
\$488,000,000

ISSUE DATE:
November 29, 2017

INTEREST RATE:
3-month LIBOR plus 0.23% per annum

MATURITY DATE:
November 28, 2017

INTEREST PAYMENT DATES:
February 28, 2018, May 28, 2018,
August 28, 2018 and the Maturity
Date

THIS SENIOR NOTE IS A:
☒ Global Book-Entry Bond
☐ Certificated Bond

REGISTERED OWNER: Cede & Co., as
nominee of The Depository Trust
Company

3-month LIBOR plus 0.23% per
annum

PACIFIC GAS AND ELECTRIC COMPANY

FLOATING RATE SENIOR NOTES DUE NOVEMBER 28, 2018

(Floating Rate)

No. A-1
CUSIP No: 694308 HT7

Principal Amount: \$488,000,000

PACIFIC GAS AND ELECTRIC COMPANY, a corporation duly organized and existing under the laws of the State of California (herein called the "Company," which term includes any successor Person pursuant to the applicable provisions of the Indenture hereinafter referred to), for value received, hereby promises to pay to Cede & Co., as nominee for The Depository Trust Company, or registered assigns, the Principal Amount stated above on the Maturity Date stated above, and to pay interest thereon from and including the Issue Date stated above or, in the case of a Floating Rate Senior Note due November 28, 2018 issued upon the registration of transfer or exchange, from and including the most recent Interest Payment Date to which interest has been paid or duly provided for, quarterly in arrears on the Interest Payment Dates set forth above and on the Maturity Date stated above until the principal hereof is paid or made available for payment. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this Floating Rate Senior Note due November 28, 2018 (this "Senior Note," and together with all other Floating Rate Senior Notes due November 28, 2018, the "Senior Notes") is registered at the close of business on the Regular Record Date for such interest, which shall be the 15th day preceding such Interest Payment Date, as applicable; provided, however, that interest payable at the Maturity Date will be paid to the Person to whom principal is payable. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such Regular Record Date and may either be paid to the Person in whose name this Senior Note is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Senior Notes not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of the Indenture and any securities exchange, if any, on which the Senior Notes may be listed, and upon such notice as may be required by any such exchange, all as more fully provided in said Indenture.

Payments of interest on this Senior Note will include interest accrued to but excluding the respective Interest Payment Dates. Interest payments for this Senior Note shall be computed and paid on the basis of a 360-day year and the actual days elapsed.

Payment of principal of, premium, if any, and interest on Senior Notes shall be made in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts. Payments of principal of, premium, if any, and interest on the Senior Notes represented by a Global Bond shall be made by wire transfer of immediately available funds to the Holder of such Global Bond, provided that, in the case of payments of principal and premium, if any, such Global Bond is first surrendered to the Paying Agent. If any of the Senior Notes are no longer represented by a Global Bond, (i) payments of principal, premium, if any, and interest due on the Maturity Date of such Senior Notes shall be made at the office of the Paying Agent upon surrender of such Senior Notes to the Paying Agent, and (ii) payments of interest shall be made, at the option of the Company, subject to such surrender where applicable, (A) by check mailed to the address of the Person entitled thereto as such address shall appear in the Bond Register or (B) by wire transfer to registered Holders of at least \$10,000,000 in principal amount of Senior Notes at such place and to such account at a banking institution in the United States as such Holders may designate in writing to the Trustee at least sixteen (16) days prior to the date for payment.

REFERENCE IS HEREBY MADE TO THE FURTHER PROVISIONS OF THIS SENIOR NOTE SET FORTH ON THE REVERSE HEREOF, WHICH FURTHER PROVISIONS SHALL FOR ALL PURPOSES HAVE THE SAME EFFECT AS IF SET FORTH AT THIS PLACE.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Senior Note shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____, 2017

PACIFIC GAS AND ELECTRIC COMPANY

By: David S. Thomason
Name: David S. Thomason
Title: Vice President, Chief Financial Officer and Controller

By: _____
Name: Nicholas M. Bijur
Title: Vice President and Treasurer

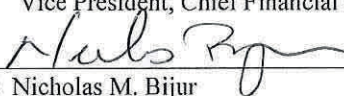
[Signature Page to the 144A Floating Rate Global Note due 2018]

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____, 2017

PACIFIC GAS AND ELECTRIC COMPANY

By: _____
Name: David S. Thomason
Title: Vice President, Chief Financial Officer and Controller

By:  _____
Name: Nicholas M. Bijur
Title: Vice President and Treasurer

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

This Senior Note is one of the Bonds of the series designated as the 2018 Notes referred to in the within-mentioned Indenture.

Dated: 11-29-2017

THE BANK OF NEW YORK MELLON TRUST
COMPANY, N.A., as Trustee

By: 
Authorized Signatory

Reverse of Senior Note

This Floating Rate Senior Note due November 28, 2018 is one of a duly authorized issue of Bonds of the Company, issued and issuable under the Indenture, dated as of November 29, 2017 (the “Indenture”), between the Company and The Bank of New York Mellon Trust Company, N.A., as Trustee (herein called the “Trustee,” which term includes any successor trustee under the Indenture), and reference is hereby made to the Indenture for a description of the respective rights, limitations of rights, duties and immunities of the Company, the Trustee and the Holders of Bonds thereunder and of the terms and conditions upon which Bonds are, and are to be, authenticated and delivered. This Senior Note is a Bond within the meaning of the Indenture and is designated as the Floating Rate Senior Notes due November 28, 2018, established by the Company under the Indenture. The acceptance of this Senior Note shall be deemed to constitute the consent and agreement by the Holder hereof to all of the terms and provisions of the Indenture.

The interest rate on the Senior Notes will be reset quarterly on February 28, 2018, May 28, 2018 and August 28, 2018 (each, an “Interest Reset Date”). The Senior Notes will bear interest at a per annum rate equal to three-month LIBOR (as defined below) for the applicable Interest Reset Period or Initial Interest Period (each as defined below) plus 0.23% (23 basis points). The interest rate for the Initial Interest Period will be three-month LIBOR, determined as of two London Business Days prior to the Issue Date, plus 0.23% (23 basis points) per annum, which shall be 1.692%. However, upon the occurrence or failure to occur of certain events specified in the Registration Rights Agreement, the Company shall, subject to the terms and conditions set forth in the Registration Rights Agreement, pay additional interest on the principal amount of this Note after such event occurs or fails to occur so long as such event continues or fails to occur, as the case may be. Such additional interest shall be payable in addition to any other interest payable from time to time with respect to this Note.

The “Initial Interest Period” will be the period from and including the Issue Date to but excluding the initial Interest Reset Date. Thereafter, each “Interest Reset Period” will be the period from and including an Interest Reset Date to but excluding the immediately succeeding Interest Reset Date; provided that the final Interest Reset Period for the Senior Notes will be the period from and including the Interest Reset Date immediately preceding the Maturity Date of such Senior Notes to but excluding the Maturity Date.

If any Interest Reset Date would otherwise be a day that is not a Business Day, the Interest Reset Date will be postponed to the immediately succeeding day that is a Business Day, except that if that Business Day is in the immediately succeeding calendar month, the Interest Reset Date shall be the immediately preceding Business Day.

The interest rate in effect on each day will be (i) if that day is an Interest Reset Date, the interest rate determined as of the Interest Determination Date (as defined below) immediately preceding such Interest Reset Date or (ii) if that day is not an Interest Reset Date, the interest rate determined as of the Interest Determination Date immediately preceding the most recent Interest Reset Date or the Issue Date, as the case may be.

The interest rate applicable to each Interest Reset Period commencing on the related Interest Reset Date, or the Issue Date in the case of the Initial Interest Period, will be the rate determined as of the applicable Interest Determination Date. The “Interest Determination Date” will be the second London Business Day immediately preceding the Issue Date, in the case of the initial Interest Reset Period, or thereafter, will be the second London Business Day immediately preceding the applicable Interest Reset Date. With respect to any Interest Determination Date, the Calculation Agent will determine three-month LIBOR in accordance with the following provisions:

(i) LIBOR is the rate for deposits in U.S. dollars for the three-month period which appears on Reuters Screen LIBOR01 Page (as defined below) at approximately 11:00 a.m., London time, on the applicable Interest Determination Date. “Reuters Screen LIBOR01 Page” means the display designated on page “LIBOR01” on Reuters Screen (or such other page as may replace the LIBOR01 page on that service, any successor service or such other service or services as may be nominated

by the British Bankers' Association for the purpose of displaying London interbank offered rates for U.S. dollar deposits). If no rate appears on Reuters Screen LIBOR01 Page, LIBOR for such Interest Determination Date will be determined in accordance with the provisions of paragraph (ii) below.

(ii) With respect to an Interest Determination Date on which no rate appears on Reuters Screen LIBOR01 Page as of approximately 11:00 a.m., London time, on such Interest Determination Date, the Calculation Agent shall request the principal London offices of each of four major reference banks (which may include affiliates of the underwriters) in the London interbank market selected by the Company to provide the Calculation Agent with a quotation of the rate at which deposits of U.S. dollars having a three-month maturity, commencing on the second London Business Day immediately following such Interest Determination Date, are offered by it to prime banks in the London interbank market as of approximately 11:00 a.m., London time, on such Interest Determination Date in a principal amount equal to an amount of not less than U.S. \$1,000,000 that is representative for a single transaction in such market at such time. If at least two such quotations are provided, LIBOR for such Interest Determination Date will be the arithmetic mean of such quotations as calculated by the Calculation Agent. If fewer than two quotations are provided, LIBOR for such Interest Determination Date will be the arithmetic mean of the rates quoted as of approximately 11:00 a.m., New York City time, on such Interest Determination Date by three major banks (which may include affiliates of the underwriters) selected by the Company for loans in U.S. dollars to leading European banks having a three-month maturity commencing on the second London Business Day immediately following such Interest Determination Date and in a principal amount equal to an amount of not less than U.S. \$1,000,000 that is representative for a single transaction in such market at such time; provided, however, that if the banks selected as aforesaid by the Company are not quoting such rates as mentioned in this sentence, LIBOR for such Interest Determination Date will be LIBOR determined with respect to the immediately preceding Interest Determination Date.

All percentages resulting from any calculation of any interest rate for the Senior Notes will be rounded, if necessary, to the nearest one hundred thousandth of a percentage point, with five one-millionths of a percentage point rounded upward (e.g., 9.876545% (or .09876545) would be rounded to 9.87655% (or .0987655)), and all dollar amounts will be rounded to the nearest cent, with one-half cent being rounded upward.

Promptly upon such determination, the Calculation Agent will notify the Company and the Trustee (if the Calculation Agent is not the Trustee) of the interest rate for the new Interest Reset Period. Upon request of a Holder of the Senior Notes, the Calculation Agent will provide to such Holder the interest rate in effect on the date of such request and, if determined, the interest rate for the next Interest Reset Period.

All calculations made by the Calculation Agent for the purposes of calculating interest on the Senior Notes shall be conclusive and binding on the Holders of the Senior Notes and the Company, absent manifest errors.

"Business Day" means any day (1) that is not a Saturday or Sunday and that is not a day on which banking institutions are authorized or obligated by law or executive order to close in The City of New York and, for any place of payment outside of The City of New York, in such place of payment, and (2) that is also a "London Business Day", which is a day on which dealings in deposits in U.S. dollars are transacted in the London interbank market.

Interest will be payable on February 28, 2018, May 28, 2018, August 28, 2018 and on the Maturity Date (each an "Interest Payment Date"). In the event that any date on which interest is payable on this Senior Note (other than the Maturity Date) is not a Business Day, then payment of the interest payable on such date will be made on the next succeeding day that is a Business Day (and without any interest or payment in respect of any such delay) with the same force and effect as if made on the date the payment was originally payable, except that if such Business Day is in the next succeeding calendar month, such Interest Payment Date shall be the immediately preceding Business Day. If the Maturity Date falls on a day that is not a

Business Day, the payment of principal, premium, if any, and interest may be made on the next succeeding Business Day with the same force and effect as if made on the date payment was originally payable, and no interest on such payment shall accrue for the period from and after maturity.

Unless otherwise specified on the face hereof, interest payments, if any, will be the amount of interest accrued from and including the last date in respect of which interest has been paid or duly provided for (or from and including the Issue Date stated above if no interest has been paid or provided for with respect to this Senior Note) to but excluding the Interest Payment Date or the Maturity Date. Accrued interest hereon from the Issue Date stated above or from the last date to which interest hereon has been paid is calculated by multiplying the face amount hereof by an accrued interest factor. Such accrued interest factor is computed by adding the interest factor calculated for each day from the Issue Date stated above or from the last date to which interest shall have been paid, to the date for which accrued interest is being calculated. The interest factor for each day shall be computed by dividing the interest rate applicable to such day by 360. All percentages resulting from any calculation hereon will be rounded to the nearest one hundred-thousandth of a percentage point, with five-one millionths of a percentage point rounded upwards. For example, 9.876545% (or .09876545) would be rounded to 9.87655% (or .0987655). All dollar amounts used in or resulting from any calculation hereon will be rounded to the nearest cent.

The interest rate on the Senior Notes will in no event be higher than the maximum rate permitted by New York law as the same may be modified by United States law of general applicability.

This Senior Note shall not be subject to redemption prior to its Stated Maturity.

As provided in the Indenture and subject to certain limitations therein set forth, this Senior Note or any portion of the principal amount hereof will be deemed to have been paid for all purposes of the Indenture and to be no longer Outstanding thereunder, and the Company's entire indebtedness in respect thereof will be satisfied and discharged, if there has been irrevocably deposited with the Trustee or any Paying Agent (other than the Company), in trust, money in an amount which will be sufficient and/or Eligible Obligations, the principal of and interest on which when due, without regard to any reinvestment thereof, will provide moneys which, together with money, if any, deposited with or held by the Trustee or such Paying Agent, will be sufficient to pay when due the principal of and premium, if any, and interest on this Senior Note when due.

If an Event of Default shall occur and be continuing, the Trustee or the Holders of not less than 33% in aggregate principal amount of the Outstanding Bonds, considered as one class, may declare the principal amount of all Bonds then Outstanding to be due and payable immediately by notice in writing to the Company (and to the Trustee if given by Holders); provided, however, that with respect to certain Events of Default relating to bankruptcy, insolvency and similar events, the principal amount of all Bonds then Outstanding shall be due and payable immediately without further action by the Trustee or the Holders.

The Indenture permits, with certain exceptions as therein provided, the Company and the Trustee to enter into one or more supplemental indentures for the purpose of adding any provisions to, or changing in any manner or eliminating any of the provisions of, the Indenture with the consent of the Holders of not less than a majority in aggregate principal amount of the Bonds at the time Outstanding, considered as one class; provided, however, that if there shall be Bonds of more than one series Outstanding under the Indenture and if a proposed supplemental indenture shall directly affect the rights of the Holders of Bonds of one or more, but less than all, of such series, then the consent only of the Holders of a majority in aggregate principal amount of the Outstanding Bonds of all series so directly affected, considered as one class, shall be required; and provided, further, that the Indenture permits the Company and the Trustee to enter into one or more supplemental indentures for certain purposes without the consent of any Holders of Bonds. The Indenture also contains provisions permitting the Holders of a majority in aggregate principal amount of Bonds, on behalf of the Holders of all such Bonds, to waive certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Senior Note shall be conclusive and binding upon such Holder and upon all future Holders of this Senior Note and of any Senior Note issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Senior Note.

As provided in and subject to the provisions of the Indenture, the Holder of this Senior Note shall not have the right to institute any proceeding with respect to the Indenture or for the appointment of a receiver or trustee or for any other remedy thereunder, unless such Holder shall have previously given the Trustee written notice of a continuing Event of Default, the Holders of at least 33% in aggregate principal amount of the Bonds at the time Outstanding shall have made written request to the Trustee to institute proceedings in respect of such Event of Default as Trustee and offered the Trustee reasonable indemnity, and the Trustee shall not have received from the Holders of at least a majority in aggregate principal amount of Bonds at the time Outstanding a direction inconsistent with such written request, and shall have failed to institute any such proceeding for 60 days after receipt of such notice, request and offer of indemnity. The foregoing shall not apply to any suit instituted by the Holder of this Senior Note for the enforcement of any payment of principal hereof or any premium or interest hereon on or after the respective due dates expressed herein.

No reference herein to the Indenture and no provision of this Senior Note or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and any premium and interest on this Senior Note at the times, place and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Senior Note is registrable in the Bond Register, upon surrender of this Senior Note for registration of transfer at the office or agency of the Company in any place where the principal of and any premium and interest on this Senior Note are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company, the Trustee or the Bond Registrar, as the case may be, duly executed by the Holder hereof or such Holder's attorney duly authorized in writing, and thereupon one or more new Senior Notes of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Senior Notes are issuable only in registered form without coupons in denominations of \$100,000 and integral multiples of \$1,000 in excess thereof. As provided in the Indenture and subject to certain limitations therein set forth, Senior Notes are exchangeable for a like aggregate principal amount of Senior Notes and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

Prior to due presentment of this Senior Note for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Senior Note is registered as the owner hereof for all purposes, whether or not this Senior Note is overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

This Senior Note shall be governed by, and construed and enforced in accordance with, the laws of the State of New York without regard to the principles of conflicts of laws thereunder, except to the extent that the Trust Indenture Act shall be applicable.

As provided in the Indenture, no recourse shall be had for the payment of the principal of, premium, if any, or interest with respect to this Senior Note, or any part thereof, or for any claim based hereon or otherwise in respect hereof, or of the indebtedness represented hereby, or upon any obligation, covenant or agreement under the Indenture or the Registration Rights Agreement, against any incorporator, shareholder, officer or director, as such, past, present or future, of the Company or of any predecessor or successor corporation (either directly or through the Company or a predecessor or successor corporation), whether by virtue of any constitutional provision, statute or rule of law or by the enforcement of any assessment or penalty or otherwise; it being expressly agreed and understood that the Indenture and all the Bonds are solely corporate obligations and that any such personal liability is hereby expressly waived and released as a condition of, and as part of the consideration for, the execution of the Indenture and the issuance of this Senior Note.

All terms used in this Senior Note which are not defined herein shall have the meanings assigned to them in the Indenture.

ASSIGNMENT FORM

To assign this Security, fill in the form below:

I or we assign and transfer this Security to

(Print or type assignee's name, address and zip code)

(Insert assignee's soc. sec. or tax I.D. No.)

and irrevocably appoint _____ agent to transfer this Security on the books of the Company. The agent may substitute another to act for him.

Date: _____ Your signature: _____

Sign exactly as your name appears on the other side of this Security.

Signature Guarantee:

(Signature must be guaranteed)

Signatures must be guaranteed by an "eligible guarantor institution" meeting the requirements of the Registrar, which requirements include membership or participation in the Security Transfer Agent Medallion Program ("STAMP") or such other "signature guarantee program" as may be determined by the Registrar in addition to, or in substitution for, STAMP, all in accordance with the Securities Exchange Act of 1934, as amended.

In connection with any transfer of any of the Securities evidenced by this certificate occurring prior to one year (or such shorter period of time as permitted by Rule 144 under the Securities Act or any successor provision thereto) after the later of the Issue Date hereof and the last date, if any, on which such Securities were owned by the Company or any Affiliate of the Company (or, in the case of Regulation S Securities, prior to the expiration of the Restricted Period), the undersigned confirms that such Securities are being transferred in accordance with their terms:

CHECK ONE BOX BELOW

- (1) ☐ to the Company or any Subsidiary thereof; or
- (2) ☐ pursuant to a registration statement which has become effective under the Securities Act of 1933, as amended (the "Securities Act"); or
- (3) ☐ for so long as the Securities are eligible for resale pursuant to Rule 144A, to a person who the undersigned reasonably believes is a "qualified institutional buyer" (as defined in Rule 144A under the Securities Act) that is purchasing for its own account or for the account of a qualified institutional buyer to whom notice is given that such transfer is being made in reliance on Rule 144A, in each case pursuant to and in compliance with Rule 144A under the Securities Act; or
- (4) ☐ pursuant to offers and sales that occur outside the United States within the meaning of Regulation S under the Securities Act in compliance with Rule 904 under the Securities Act; or
- (5) ☐ pursuant to another exemption from registration under the Securities Act.

Unless one of the boxes is checked, the Trustee will refuse to register any of the Securities evidenced by this certificate in the name of any person other than the registered holder thereof; provided, however, that if box (5) is checked, the Company and the Trustee shall be entitled to require, prior to registering any such transfer of the Securities, such legal opinions, certifications or other evidence as may reasonably be required in order to determine that the proposed transfer is being made in compliance with the Securities Act and applicable state securities laws.

Signature

SCHEDULE OF EXCHANGES OF INTERESTS IN THE GLOBAL BOND

The initial principal amount of this Global Bond is \$488,000,000. The following increases or decreases in this Global Bond have been made:

Date of Exchange	Amount of decrease in Principal Amount of this Global Bond	Amount of increase in Principal Amount of this Global Bond	Principal Amount of this Global Bond following such decrease (or increase)	Signature of authorized officer of Trustee or Depository
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FLOATING RATE SENIOR NOTES DUE NOVEMBER 28, 2018

THIS BOND IS A GLOBAL BOND WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY (AS DEFINED IN THE INDENTURE) OR A NOMINEE THEREOF. THIS GLOBAL BOND IS EXCHANGEABLE FOR BONDS REGISTERED IN THE NAME OF ANY PERSON OTHER THAN SUCH DEPOSITARY OR ITS NOMINEE ONLY IN LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE AND, UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR BONDS IN CERTIFICATED FORM, THIS GLOBAL BOND MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITARY TO A NOMINEE OF THE DEPOSITARY, OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANOTHER NOMINEE OF THE DEPOSITARY, OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY.

UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION ("DTC"), TO THE COMPANY (AS DEFINED BELOW) OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY BOND ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

THIS BOND HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED PRIOR TO (I) THE DATE (THE "RESALE RESTRICTION TERMINATION DATE") THAT IS 40 DAYS AFTER THE LAST DATE OF THE ORIGINAL ISSUANCE OF THE BONDS OR SUCH SHORTER PERIOD OF TIME AS PERMITTED BY REGULATION S OR ANY SUCCESSOR PROVISION THERETO AND (II) A LATER DATE, IF ANY, AS MAY BE REQUIRED BY APPLICABLE LAW, OTHER THAN (A)(1) TO PACIFIC GAS AND ELECTRIC COMPANY (THE "COMPANY") OR ONE OF ITS SUBSIDIARIES, (2) IN A TRANSACTION ENTITLED TO AN EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT, (3) SO LONG AS THIS BOND IS ELIGIBLE FOR RESALE PURSUANT TO RULE 144A UNDER THE SECURITIES ACT ("RULE 144A"), TO A PERSON WHOM THE SELLER REASONABLY BELIEVES IS A "QUALIFIED INSTITUTIONAL BUYER" WITHIN THE MEANING OF RULE 144A PURCHASING FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER TO WHOM NOTICE IS GIVEN THAT THE RESALE, PLEDGE OR OTHER TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A (AS INDICATED BY THE BOX CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (4) IN AN OFFSHORE TRANSACTION IN ACCORDANCE WITH RULE 903 OR RULE 904 OF REGULATION S UNDER THE SECURITIES ACT (AS INDICATED BY THE BOX CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (5) IN ACCORDANCE WITH ANOTHER APPLICABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT (AND BASED UPON AN OPINION OF COUNSEL ACCEPTABLE TO THE COMPANY) OR (6) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT AND (B) IN EACH CASE IN ACCORDANCE WITH ANY APPLICABLE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES OR IN ANY OTHER APPLICABLE JURISDICTION. THE HOLDER HEREOF, BY PURCHASING THIS BOND, REPRESENTS AND AGREES FOR THE BENEFIT OF THE COMPANY THAT IT IS (1) A QUALIFIED INSTITUTIONAL BUYER WITHIN THE MEANING OF RULE 144A OR (2) A NON-US PERSON OUTSIDE THE UNITED STATES WITHIN THE MEANING OF, OR AN ACCOUNT SATISFYING THE REQUIREMENTS OF PARAGRAPH (K)(2) OF RULE 902 UNDER, BY ITS ACQUISITION HEREOF, THE HOLDER HEREOF REPRESENTS THAT IT IS NOT A U.S. PERSON NOR IS IT PURCHASING FOR THE ACCOUNT OF A U.S. PERSON AND IS ACQUIRING

THIS BOND IN AN OFFSHORE TRANSACTION IN ACCORDANCE WITH REGULATION S UNDER THE SECURITIES ACT.

THE RIGHTS ATTACHING TO THIS TEMPORARY REGULATION S GLOBAL BOND, AND THE CONDITIONS AND PROCEDURES GOVERNING (I) THE EXCHANGE OF BENEFICIAL INTERESTS IN THIS TEMPORARY REGULATION S GLOBAL BOND FOR INTERESTS IN THE REGULATION S GLOBAL BOND OR RULE 144A GLOBAL BOND AND (II) THE TRANSFER OF INTERESTS IN THIS TEMPORARY REGULATION S GLOBAL BOND, ARE AS SPECIFIED IN THE INDENTURE REFERRED TO ON THE REVERSE HEREOF.

THE FOLLOWING SUMMARY OF TERMS IS SUBJECT TO THE INFORMATION SET FORTH ON THE REVERSE HEREOF:

PRINCIPAL AMOUNT: \$12,000,000	ISSUE DATE: November 29, 2017	INTEREST RATE: 3-month LIBOR plus 0.23% per annum
MATURITY DATE: November 28, 2017	INTEREST PAYMENT DATES: February 28, 2018, May 28, 2018, August 28, 2018 and the Maturity Date	THIS SENIOR NOTE IS A: <input checked="" type="checkbox"/> Global Book-Entry Bond <input type="checkbox"/> Certificated Bond
REGISTERED OWNER: Cede & Co., as nominee of The Depository Trust Company	3-month LIBOR plus 0.23% per annum	

PACIFIC GAS AND ELECTRIC COMPANY

FLOATING RATE SENIOR NOTES DUE NOVEMBER 28, 2018

(Floating Rate)

No. S-1
CUSIP No: U69430 AD5

Principal Amount: \$12,000,000

PACIFIC GAS AND ELECTRIC COMPANY, a corporation duly organized and existing under the laws of the State of California (herein called the "Company," which term includes any successor Person pursuant to the applicable provisions of the Indenture hereinafter referred to), for value received, hereby promises to pay to Cede & Co., as nominee for The Depository Trust Company, or registered assigns, the Principal Amount stated above on the Maturity Date stated above, and to pay interest thereon from and including the Issue Date stated above or, in the case of a Floating Rate Senior Note due November 28, 2018 issued upon the registration of transfer or exchange, from and including the most recent Interest Payment Date to which interest has been paid or duly provided for, quarterly in arrears on the Interest Payment Dates set forth above and on the Maturity Date stated above until the principal hereof is paid or made available for payment. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this Floating Rate Senior Note due November 28, 2018 (this "Senior Note," and together with all other Floating Rate Senior Notes due November 28, 2018, the "Senior Notes") is registered at the close of business on the Regular Record Date for such interest, which shall be the 15th day preceding such Interest Payment Date, as applicable; provided, however, that interest payable at the Maturity Date will be paid to the Person to whom principal is payable. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such Regular Record Date and may either be paid to the Person in whose name this Senior Note is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Senior Notes not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of the Indenture and any securities exchange, if any, on which the Senior Notes may be listed, and upon such notice as may be required by any such exchange, all as more fully provided in said Indenture.

Payments of interest on this Senior Note will include interest accrued to but excluding the respective Interest Payment Dates. Interest payments for this Senior Note shall be computed and paid on the basis of a 360-day year and the actual days elapsed.

Payment of principal of, premium, if any, and interest on Senior Notes shall be made in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts. Payments of principal of, premium, if any, and interest on the Senior Notes represented by a Global Bond shall be made by wire transfer of immediately available funds to the Holder of such Global Bond, provided that, in the case of payments of principal and premium, if any, such Global Bond is first surrendered to the Paying Agent. If any of the Senior Notes are no longer represented by a Global Bond, (i) payments of principal, premium, if any, and interest due on the Maturity Date of such Senior Notes shall be made at the office of the Paying Agent upon surrender of such Senior Notes to the Paying Agent, and (ii) payments of interest shall be made, at the option of the Company, subject to such surrender where applicable, (A) by check mailed to the address of the Person entitled thereto as such address shall appear in the Bond Register or (B) by wire transfer to registered Holders of at least \$10,000,000 in principal amount of Senior Notes at such place and to such account at a banking institution in the United States as such Holders may designate in writing to the Trustee at least sixteen (16) days prior to the date for payment.

REFERENCE IS HEREBY MADE TO THE FURTHER PROVISIONS OF THIS SENIOR NOTE SET FORTH ON THE REVERSE HEREOF, WHICH FURTHER PROVISIONS SHALL FOR ALL PURPOSES HAVE THE SAME EFFECT AS IF SET FORTH AT THIS PLACE.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Senior Note shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____, 2017

PACIFIC GAS AND ELECTRIC COMPANY

By: David S. Thomason

Name: David S. Thomason

Title: Vice President, Chief Financial Officer and Controller

By: _____

Name: Nicholas M. Bijur

Title: Vice President and Treasurer

[Signature Page to the Reg. S Floating Rate Global Note due 2018]

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____, 2017

PACIFIC GAS AND ELECTRIC COMPANY

By: _____

Name: David S. Thomason

Title: Vice President, Chief Financial Officer and Controller

By: _____

Name: Nicholas M. Bijur

Title: Vice President and Treasurer

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

This Senior Note is one of the Bonds of the series designated as the 2018 Notes referred to in the within-mentioned Indenture.

Dated: 11-29-2017

THE BANK OF NEW YORK MELLON TRUST
COMPANY, N.A., *as Trustee*

By: 
Authorized Signatory

Reverse of Senior Note

This Floating Rate Senior Note due November 28, 2018 is one of a duly authorized issue of Bonds of the Company, issued and issuable under the Indenture, dated as of November 29, 2017 (the “Indenture”), between the Company and The Bank of New York Mellon Trust Company, N.A., as Trustee (herein called the “Trustee,” which term includes any successor trustee under the Indenture), and reference is hereby made to the Indenture for a description of the respective rights, limitations of rights, duties and immunities of the Company, the Trustee and the Holders of Bonds thereunder and of the terms and conditions upon which Bonds are, and are to be, authenticated and delivered. This Senior Note is a Bond within the meaning of the Indenture and is designated as the Floating Rate Senior Notes due November 28, 2018, established by the Company under the Indenture. The acceptance of this Senior Note shall be deemed to constitute the consent and agreement by the Holder hereof to all of the terms and provisions of the Indenture.

The interest rate on the Senior Notes will be reset quarterly on February 28, 2018, May 28, 2018 and August 28, 2018 (each, an “Interest Reset Date”). The Senior Notes will bear interest at a per annum rate equal to three-month LIBOR (as defined below) for the applicable Interest Reset Period or Initial Interest Period (each as defined below) plus 0.23% (23 basis points). The interest rate for the Initial Interest Period will be three-month LIBOR, determined as of two London Business Days prior to the Issue Date, plus 0.23% (23 basis points) per annum, which shall be 1.692%. However, upon the occurrence or failure to occur of certain events specified in the Registration Rights Agreement, the Company shall, subject to the terms and conditions set forth in the Registration Rights Agreement, pay additional interest on the principal amount of this Note after such event occurs or fails to occur so long as such event continues or fails to occur, as the case may be. Such additional interest shall be payable in addition to any other interest payable from time to time with respect to this Note.

The “Initial Interest Period” will be the period from and including the Issue Date to but excluding the initial Interest Reset Date. Thereafter, each “Interest Reset Period” will be the period from and including an Interest Reset Date to but excluding the immediately succeeding Interest Reset Date; provided that the final Interest Reset Period for the Senior Notes will be the period from and including the Interest Reset Date immediately preceding the Maturity Date of such Senior Notes to but excluding the Maturity Date.

If any Interest Reset Date would otherwise be a day that is not a Business Day, the Interest Reset Date will be postponed to the immediately succeeding day that is a Business Day, except that if that Business Day is in the immediately succeeding calendar month, the Interest Reset Date shall be the immediately preceding Business Day.

The interest rate in effect on each day will be (i) if that day is an Interest Reset Date, the interest rate determined as of the Interest Determination Date (as defined below) immediately preceding such Interest Reset Date or (ii) if that day is not an Interest Reset Date, the interest rate determined as of the Interest Determination Date immediately preceding the most recent Interest Reset Date or the Issue Date, as the case may be.

The interest rate applicable to each Interest Reset Period commencing on the related Interest Reset Date, or the Issue Date in the case of the Initial Interest Period, will be the rate determined as of the applicable Interest Determination Date. The “Interest Determination Date” will be the second London Business Day immediately preceding the Issue Date, in the case of the initial Interest Reset Period, or thereafter, will be the second London Business Day immediately preceding the applicable Interest Reset Date. With respect to any Interest Determination Date, the Calculation Agent will determine three-month LIBOR in accordance with the following provisions:

(i) LIBOR is the rate for deposits in U.S. dollars for the three-month period which appears on Reuters Screen LIBOR01 Page (as defined below) at approximately 11:00 a.m., London time, on the applicable Interest Determination Date. “Reuters Screen LIBOR01 Page” means the display designated on page “LIBOR01” on Reuters Screen (or such other page as may replace the LIBOR01 page on that service, any successor service or such other service or services as may be nominated

by the British Bankers' Association for the purpose of displaying London interbank offered rates for U.S. dollar deposits). If no rate appears on Reuters Screen LIBOR01 Page, LIBOR for such Interest Determination Date will be determined in accordance with the provisions of paragraph (ii) below.

(ii) With respect to an Interest Determination Date on which no rate appears on Reuters Screen LIBOR01 Page as of approximately 11:00 a.m., London time, on such Interest Determination Date, the Calculation Agent shall request the principal London offices of each of four major reference banks (which may include affiliates of the underwriters) in the London interbank market selected by the Company to provide the Calculation Agent with a quotation of the rate at which deposits of U.S. dollars having a three-month maturity, commencing on the second London Business Day immediately following such Interest Determination Date, are offered by it to prime banks in the London interbank market as of approximately 11:00 a.m., London time, on such Interest Determination Date in a principal amount equal to an amount of not less than U.S. \$1,000,000 that is representative for a single transaction in such market at such time. If at least two such quotations are provided, LIBOR for such Interest Determination Date will be the arithmetic mean of such quotations as calculated by the Calculation Agent. If fewer than two quotations are provided, LIBOR for such Interest Determination Date will be the arithmetic mean of the rates quoted as of approximately 11:00 a.m., New York City time, on such Interest Determination Date by three major banks (which may include affiliates of the underwriters) selected by the Company for loans in U.S. dollars to leading European banks having a three-month maturity commencing on the second London Business Day immediately following such Interest Determination Date and in a principal amount equal to an amount of not less than U.S. \$1,000,000 that is representative for a single transaction in such market at such time; provided, however, that if the banks selected as aforesaid by the Company are not quoting such rates as mentioned in this sentence, LIBOR for such Interest Determination Date will be LIBOR determined with respect to the immediately preceding Interest Determination Date.

All percentages resulting from any calculation of any interest rate for the Senior Notes will be rounded, if necessary, to the nearest one hundred thousandth of a percentage point, with five one-millionths of a percentage point rounded upward (e.g., 9.876545% (or .09876545) would be rounded to 9.87655% (or .0987655)), and all dollar amounts will be rounded to the nearest cent, with one-half cent being rounded upward.

Promptly upon such determination, the Calculation Agent will notify the Company and the Trustee (if the Calculation Agent is not the Trustee) of the interest rate for the new Interest Reset Period. Upon request of a Holder of the Senior Notes, the Calculation Agent will provide to such Holder the interest rate in effect on the date of such request and, if determined, the interest rate for the next Interest Reset Period.

All calculations made by the Calculation Agent for the purposes of calculating interest on the Senior Notes shall be conclusive and binding on the Holders of the Senior Notes and the Company, absent manifest errors.

“Business Day” means any day (1) that is not a Saturday or Sunday and that is not a day on which banking institutions are authorized or obligated by law or executive order to close in The City of New York and, for any place of payment outside of The City of New York, in such place of payment, and (2) that is also a “London Business Day”, which is a day on which dealings in deposits in U.S. dollars are transacted in the London interbank market.

Interest will be payable on February 28, 2018, May 28, 2018, August 28, 2018 and on the Maturity Date (each an “Interest Payment Date”). In the event that any date on which interest is payable on this Senior Note (other than the Maturity Date) is not a Business Day, then payment of the interest payable on such date will be made on the next succeeding day that is a Business Day (and without any interest or payment in respect of any such delay) with the same force and effect as if made on the date the payment was originally payable, except that if such Business Day is in the next succeeding calendar month, such Interest Payment Date shall be the immediately preceding Business Day. If the Maturity Date falls on a day that is not a

Business Day, the payment of principal, premium, if any, and interest may be made on the next succeeding Business Day with the same force and effect as if made on the date payment was originally payable, and no interest on such payment shall accrue for the period from and after maturity.

Unless otherwise specified on the face hereof, interest payments, if any, will be the amount of interest accrued from and including the last date in respect of which interest has been paid or duly provided for (or from and including the Issue Date stated above if no interest has been paid or provided for with respect to this Senior Note) to but excluding the Interest Payment Date or the Maturity Date. Accrued interest hereon from the Issue Date stated above or from the last date to which interest hereon has been paid is calculated by multiplying the face amount hereof by an accrued interest factor. Such accrued interest factor is computed by adding the interest factor calculated for each day from the Issue Date stated above or from the last date to which interest shall have been paid, to the date for which accrued interest is being calculated. The interest factor for each day shall be computed by dividing the interest rate applicable to such day by 360. All percentages resulting from any calculation hereon will be rounded to the nearest one hundred-thousandth of a percentage point, with five-one millionths of a percentage point rounded upwards. For example, 9.876545% (or .09876545) would be rounded to 9.87655% (or .0987655). All dollar amounts used in or resulting from any calculation hereon will be rounded to the nearest cent.

The interest rate on the Senior Notes will in no event be higher than the maximum rate permitted by New York law as the same may be modified by United States law of general applicability.

This Senior Note shall not be subject to redemption prior to its Stated Maturity.

As provided in the Indenture and subject to certain limitations therein set forth, this Senior Note or any portion of the principal amount hereof will be deemed to have been paid for all purposes of the Indenture and to be no longer Outstanding thereunder, and the Company's entire indebtedness in respect thereof will be satisfied and discharged, if there has been irrevocably deposited with the Trustee or any Paying Agent (other than the Company), in trust, money in an amount which will be sufficient and/or Eligible Obligations, the principal of and interest on which when due, without regard to any reinvestment thereof, will provide moneys which, together with money, if any, deposited with or held by the Trustee or such Paying Agent, will be sufficient to pay when due the principal of and premium, if any, and interest on this Senior Note when due.

If an Event of Default shall occur and be continuing, the Trustee or the Holders of not less than 33% in aggregate principal amount of the Outstanding Bonds, considered as one class, may declare the principal amount of all Bonds then Outstanding to be due and payable immediately by notice in writing to the Company (and to the Trustee if given by Holders); provided, however, that with respect to certain Events of Default relating to bankruptcy, insolvency and similar events, the principal amount of all Bonds then Outstanding shall be due and payable immediately without further action by the Trustee or the Holders.

The Indenture permits, with certain exceptions as therein provided, the Company and the Trustee to enter into one or more supplemental indentures for the purpose of adding any provisions to, or changing in any manner or eliminating any of the provisions of, the Indenture with the consent of the Holders of not less than a majority in aggregate principal amount of the Bonds at the time Outstanding, considered as one class; provided, however, that if there shall be Bonds of more than one series Outstanding under the Indenture and if a proposed supplemental indenture shall directly affect the rights of the Holders of Bonds of one or more, but less than all, of such series, then the consent only of the Holders of a majority in aggregate principal amount of the Outstanding Bonds of all series so directly affected, considered as one class, shall be required; and provided, further, that the Indenture permits the Company and the Trustee to enter into one or more supplemental indentures for certain purposes without the consent of any Holders of Bonds. The Indenture also contains provisions permitting the Holders of a majority in aggregate principal amount of Bonds, on behalf of the Holders of all such Bonds, to waive certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Senior Note shall be conclusive and binding upon such Holder and upon all future Holders of this Senior Note and of any Senior Note issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Senior Note.

As provided in and subject to the provisions of the Indenture, the Holder of this Senior Note shall not have the right to institute any proceeding with respect to the Indenture or for the appointment of a receiver or trustee or for any other remedy thereunder, unless such Holder shall have previously given the Trustee written notice of a continuing Event of Default, the Holders of at least 33% in aggregate principal amount of the Bonds at the time Outstanding shall have made written request to the Trustee to institute proceedings in respect of such Event of Default as Trustee and offered the Trustee reasonable indemnity, and the Trustee shall not have received from the Holders of at least a majority in aggregate principal amount of Bonds at the time Outstanding a direction inconsistent with such written request, and shall have failed to institute any such proceeding for 60 days after receipt of such notice, request and offer of indemnity. The foregoing shall not apply to any suit instituted by the Holder of this Senior Note for the enforcement of any payment of principal hereof or any premium or interest hereon on or after the respective due dates expressed herein.

No reference herein to the Indenture and no provision of this Senior Note or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and any premium and interest on this Senior Note at the times, place and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Senior Note is registrable in the Bond Register, upon surrender of this Senior Note for registration of transfer at the office or agency of the Company in any place where the principal of and any premium and interest on this Senior Note are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company, the Trustee or the Bond Registrar, as the case may be, duly executed by the Holder hereof or such Holder's attorney duly authorized in writing, and thereupon one or more new Senior Notes of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Senior Notes are issuable only in registered form without coupons in denominations of \$100,000 and integral multiples of \$1,000 in excess thereof. As provided in the Indenture and subject to certain limitations therein set forth, Senior Notes are exchangeable for a like aggregate principal amount of Senior Notes and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

Prior to due presentment of this Senior Note for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Senior Note is registered as the owner hereof for all purposes, whether or not this Senior Note is overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

This Senior Note shall be governed by, and construed and enforced in accordance with, the laws of the State of New York without regard to the principles of conflicts of laws thereunder, except to the extent that the Trust Indenture Act shall be applicable.

As provided in the Indenture, no recourse shall be had for the payment of the principal of, premium, if any, or interest with respect to this Senior Note, or any part thereof, or for any claim based hereon or otherwise in respect hereof, or of the indebtedness represented hereby, or upon any obligation, covenant or agreement under the Indenture or the Registration Rights Agreement, against any incorporator, shareholder, officer or director, as such, past, present or future, of the Company or of any predecessor or successor corporation (either directly or through the Company or a predecessor or successor corporation), whether by virtue of any constitutional provision, statute or rule of law or by the enforcement of any assessment or penalty or otherwise; it being expressly agreed and understood that the Indenture and all the Bonds are solely corporate obligations and that any such personal liability is hereby expressly waived and released as a condition of, and as part of the consideration for, the execution of the Indenture and the issuance of this Senior Note.

All terms used in this Senior Note which are not defined herein shall have the meanings assigned to them in the Indenture.

ASSIGNMENT FORM

To assign this Security, fill in the form below:

I or we assign and transfer this Security to

(Print or type assignee's name, address and zip code)

(Insert assignee's soc. sec. or tax I.D. No.)

and irrevocably appoint _____ agent to transfer this Security on the books of the Company. The agent may substitute another to act for him.

Date: _____ Your signature: _____

Sign exactly as your name appears on the other side of this Security.

Signature Guarantee:

(Signature must be guaranteed)

Signatures must be guaranteed by an "eligible guarantor institution" meeting the requirements of the Registrar, which requirements include membership or participation in the Security Transfer Agent Medallion Program ("STAMP") or such other "signature guarantee program" as may be determined by the Registrar in addition to, or in substitution for, STAMP, all in accordance with the Securities Exchange Act of 1934, as amended.

In connection with any transfer of any of the Securities evidenced by this certificate occurring prior to one year (or such shorter period of time as permitted by Rule 144 under the Securities Act or any successor provision thereto) after the later of the Issue Date hereof and the last date, if any, on which such Securities were owned by the Company or any Affiliate of the Company (or, in the case of Regulation S Securities, prior to the expiration of the Restricted Period), the undersigned confirms that such Securities are being transferred in accordance with their terms:

CHECK ONE BOX BELOW

- (1) ☐ to the Company or any Subsidiary thereof; or
- (2) ☐ pursuant to a registration statement which has become effective under the Securities Act of 1933, as amended (the "Securities Act"); or
- (3) ☐ for so long as the Securities are eligible for resale pursuant to Rule 144A, to a person who the undersigned reasonably believes is a "qualified institutional buyer" (as defined in Rule 144A under the Securities Act) that is purchasing for its own account or for the account of a qualified institutional buyer to whom notice is given that such transfer is being made in reliance on Rule 144A, in each case pursuant to and in compliance with Rule 144A under the Securities Act; or
- (4) ☐ pursuant to offers and sales that occur outside the United States within the meaning of Regulation S under the Securities Act in compliance with Rule 904 under the Securities Act; or
- (5) ☐ pursuant to another exemption from registration under the Securities Act.

Unless one of the boxes is checked, the Trustee will refuse to register any of the Securities evidenced by this certificate in the name of any person other than the registered holder thereof; *provided, however*, that if box (5) is checked, the Company and the Trustee shall be entitled to require, prior to registering any such transfer of the Securities, such legal opinions, certifications or other evidence as may reasonably be required in order to

determine that the proposed transfer is being made in compliance with the Securities Act and applicable state securities laws.

Signature

SCHEDULE OF EXCHANGES OF INTERESTS IN THE GLOBAL BOND

The initial principal amount of this Global Bond is \$12,000,000. The following increases or decreases in this Global Bond have been made:

Date of Exchange	Amount of decrease in Principal Amount of this Global Bond	Amount of increase in Principal Amount of this Global Bond	Principal Amount of this Global Bond following such decrease (or increase)	Signature of authorized officer of Trustee or Depository
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3.30% SENIOR NOTES DUE DECEMBER 1, 2027

THIS BOND IS A GLOBAL BOND WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY (AS DEFINED IN THE INDENTURE) OR A NOMINEE THEREOF. THIS GLOBAL BOND IS EXCHANGEABLE FOR BONDS REGISTERED IN THE NAME OF ANY PERSON OTHER THAN SUCH DEPOSITARY OR ITS NOMINEE ONLY IN LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE AND, UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR BONDS IN CERTIFICATED FORM, THIS GLOBAL BOND MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITARY TO A NOMINEE OF THE DEPOSITARY, OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANOTHER NOMINEE OF THE DEPOSITARY, OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY.

UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITARY TRUST COMPANY, A NEW YORK CORPORATION (“DTC”), TO THE COMPANY (AS DEFINED BELOW) OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY BOND ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

THIS BOND HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED PRIOR TO (I) THE DATE (THE “RESALE RESTRICTION TERMINATION DATE”) THAT IS ONE YEAR AFTER THE LAST ORIGINAL ISSUE DATE HEREOF OR SUCH SHORTER PERIOD OF TIME AS PERMITTED BY RULE 144 UNDER THE SECURITIES ACT OR ANY SUCCESSOR PROVISION THERETO AND (II) A LATER DATE, IF ANY, AS MAY BE REQUIRED BY APPLICABLE LAW, OTHER THAN (A)(1) TO PACIFIC GAS AND ELECTRIC COMPANY (THE “COMPANY”) OR ONE OF ITS SUBSIDIARIES, (2) IN A TRANSACTION ENTITLED TO AN EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT, (3) SO LONG AS THIS BOND IS ELIGIBLE FOR RESALE PURSUANT TO RULE 144A UNDER THE SECURITIES ACT (“RULE 144A”), TO A PERSON WHOM THE SELLER REASONABLY BELIEVES IS A “QUALIFIED INSTITUTIONAL BUYER” WITHIN THE MEANING OF RULE 144A PURCHASING FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER TO WHOM NOTICE IS GIVEN THAT THE RESALE, PLEDGE OR OTHER TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A (AS INDICATED BY THE BOX

CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (4) IN AN OFFSHORE TRANSACTION IN ACCORDANCE WITH RULE 903 OR RULE 904 OF REGULATION S UNDER THE SECURITIES ACT (AS INDICATED BY THE BOX CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (5) IN ACCORDANCE WITH ANOTHER APPLICABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT (AND BASED UPON AN OPINION OF COUNSEL ACCEPTABLE TO THE COMPANY) OR (6) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT AND (B) IN EACH CASE IN ACCORDANCE WITH ANY APPLICABLE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES OR IN ANY OTHER APPLICABLE JURISDICTION. THE HOLDER HEREOF, BY PURCHASING THIS BOND, REPRESENTS AND AGREES FOR THE BENEFIT OF THE COMPANY THAT IT IS (1) A QUALIFIED INSTITUTIONAL BUYER WITHIN THE MEANING OF RULE 144A OR (2) A NON-US PERSON OUTSIDE THE UNITED STATES WITHIN THE MEANING OF, OR AN ACCOUNT SATISFYING THE REQUIREMENTS OF PARAGRAPH (K)(2) OF RULE 902 UNDER, REGULATION S UNDER THE SECURITIES ACT”.

SOLELY FOR UNITED STATES FEDERAL INCOME TAX PURPOSES, THIS BOND WILL BE TREATED AS ISSUED WITH ORIGINAL ISSUE DISCOUNT (“OID”). UPON REQUEST, THE COMPANY WILL PROMPTLY MAKE AVAILABLE TO A HOLDER OF THIS BOND THE FOLLOWING INFORMATION: (1) THE ISSUE PRICE AND ISSUE DATE OF THIS BOND, (2) THE AMOUNT OF OID, (3) THE YIELD TO MATURITY OF THIS BOND, AND (4) ANY OTHER INFORMATION REQUIRED TO BE MADE AVAILABLE BY U.S. TREASURY REGULATIONS. HOLDERS SHOULD CONTACT THE CHIEF FINANCIAL OFFICER AT 77 BEALE STREET, SAN FRANCISCO, CA 94105.

THE FOLLOWING SUMMARY OF TERMS IS SUBJECT TO THE INFORMATION SET FORTH ON THE REVERSE HEREOF:

PRINCIPAL AMOUNT:
\$500,000,000

ISSUE DATE:
November 29, 2017

INTEREST RATE:
3.30% per annum

MATURITY DATE:
December 1, 2027

INTEREST PAYMENT DATES:
June 1 and December 1, commencing
June 1, 2018

THIS SENIOR NOTE IS A:
☒ Global Book-Entry Bond
☐ Certificated Bond

REGISTERED OWNER: Cede & Co.,
as nominee of The Depository Trust
Company

PACIFIC GAS AND ELECTRIC COMPANY

3.30% SENIOR NOTES DUE DECEMBER 1, 2027

(Fixed Rate)

No. A-1
CUSIP No: 694308 HV2

Principal Amount: \$500,000,000

PACIFIC GAS AND ELECTRIC COMPANY, a corporation duly organized and existing under the laws of the State of California (herein called the “Company,” which term includes any successor Person pursuant to the applicable provisions of the Indenture hereinafter referred to), for value received, hereby promises to pay to Cede & Co., as nominee for The Depository Trust Company, or registered assigns, the Principal Amount stated above on the Maturity Date stated above, and to pay interest thereon from and including the Issue Date stated above or, in the case of a 3.30% Senior Note due December 1, 2027 issued upon the registration of transfer or exchange, from and including the most recent Interest Payment Date to which interest has been paid or duly provided for, semi-annually in arrears on the Interest Payment Dates set forth above and on the Maturity Date stated above, commencing June 1, 2018 at the rate of 3.30% per annum until the principal hereof is paid or made available for payment; provided, however, that, upon the occurrence or failure to occur of certain events specified in the Registration Rights Agreement, the Company shall, subject to the terms and conditions set forth in the Registration Rights Agreement, pay additional interest on the principal amount of this Note after such event occurs or fails to occur so long as such event continues or fails to occur, as the case may be. Such additional interest shall be payable in addition to any other interest payable from time to time with respect to this Note. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this 3.30% Senior Note due December 1, 2027 (this “Senior Note,” and together with all other 3.30% Senior Notes due December 1, 2027, the “Senior Notes”) (or one or more Predecessor Bonds) is registered at the close of business on the Regular Record Date for such interest, which shall be the May 15 and November 15 preceding such Interest Payment Date; provided, however, that interest payable at the Maturity Date or on a Redemption Date will be paid to the Person to whom principal is payable. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such Regular Record Date and may either be paid to the Person in whose name this Senior Note (or one or more Predecessor Bonds) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Senior Notes not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of the Indenture and any securities exchange, if any, on which the Senior Notes may be listed, and upon such notice as may be required by any such exchange, all as more fully provided in said Indenture.

Payments of interest on this Senior Note will include interest accrued to but excluding the respective Interest Payment Dates. Interest payments for this Senior Note shall be computed and paid on the basis of the 360-day year of twelve 30-day months and will accrue from November 29, 2017 or from the most recent Interest Payment Date to which interest has been paid or duly provided for. In the event that any date on which interest is payable on this Senior Note (other than the Maturity Date) is not a Business Day then payment of the interest payable on such date will be made on the next succeeding day that is a Business Day (and without any interest or payment in respect of any such delay) with the same force and effect as if made on the date the payment was originally payable. If the Maturity Date falls on a day that is not a Business Day, the payment of principal, premium, if any, and interest may be made on the next succeeding Business Day, and no interest on such payment shall accrue for the period from and after maturity.

Payment of principal of, premium, if any, and interest on Senior Notes shall be made in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts. Payments of principal of, premium, if any, and interest on the Senior Notes represented by a Global Bond shall be made by wire transfer of immediately available funds to the Holder of such Global Bond, provided that, in the case of payments of principal and premium, if any, such Global Bond is first surrendered to the Paying Agent. If any of the Senior Notes are no longer represented by a Global Bond, (i)

payments of principal, premium, if any, and interest due on the Maturity Date or earlier redemption of such Senior Notes shall be made at the office of the Paying Agent upon surrender of such Senior Notes to the Paying Agent, and (ii) payments of interest shall be made, at the option of the Company, subject to such surrender where applicable, (A) by check mailed to the address of the Person entitled thereto as such address shall appear in the Bond Register or (B) by wire transfer to registered Holders of at least \$10,000,000 in principal amount of Senior Notes at such place and to such account at a banking institution in the United States as such Holders may designate in writing to the Trustee at least sixteen (16) days prior to the date for payment.

REFERENCE IS HEREBY MADE TO THE FURTHER PROVISIONS OF THIS SENIOR NOTE SET FORTH ON THE REVERSE HEREOF, WHICH FURTHER PROVISIONS SHALL FOR ALL PURPOSES HAVE THE SAME EFFECT AS IF SET FORTH AT THIS PLACE.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Senior Note shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____, 2017

PACIFIC GAS AND ELECTRIC COMPANY

By: David S. Thomason

Name: David S. Thomason

Title: Vice President, Chief Financial Officer and Controller

By: _____

Name: Nicholas M. Bijur

Title: Vice President and Treasurer

[Signature Page to the 144A Fixed Rate Global Note due 2027]

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____, 2017

PACIFIC GAS AND ELECTRIC COMPANY

By: _____

Name: David S. Thomason

Title: Vice President, Chief Financial Officer and Controller

By: _____

Name: Nicholas M. Bijur

Title: Vice President and Treasurer

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

This Senior Note is one of the Bonds of the series designated as 2027 Notes referred to in the within-mentioned Indenture.

Dated: 11-29-2017

THE BANK OF NEW YORK MELLON TRUST
COMPANY, N.A., *As Trustee*

By: _____


Authorized Signatory

Reverse of Senior Note

This 3.30% Senior Note due December 1, 2027 is one of a duly authorized issue of Bonds of the Company, issued and issuable in one or more series under the Indenture, dated as of November 29, 2017 (the “Indenture”), between the Company and The Bank of New York Mellon Trust Company, N.A., as Trustee (herein called the “Trustee,” which term includes any successor trustee under the Indenture), and reference is hereby made to the Indenture for a description of the respective rights, limitations of rights, duties and immunities of the Company, the Trustee and the Holders of Bonds thereunder and of the terms and conditions upon which Bonds are, and are to be, authenticated and delivered. This Senior Note is a Bond within the meaning of the Indenture and is designated as the 3.30% Senior Notes due December 1, 2027 established by the Company under the Indenture and initially issued in an aggregate principal amount of \$1,150,000,000 on November 29, 2017. The acceptance of this Senior Note shall be deemed to constitute the consent and agreement by the Holder hereof to all of the terms and provisions of the Indenture.

Subject to the terms and conditions of the Indenture, the Senior Notes are redeemable at the option of the Company (“Optional Redemption”), in whole or in part, (a) at any time prior to September 1, 2027 (the date that is three months prior to the Maturity Date) at a Redemption Price equal to the greater of:

(i) 100% of the principal amount of the Senior Notes to be redeemed; or

(ii) as determined by the Quotation Agent, the sum of the present values of the Remaining Scheduled Payments of principal and interest on the Senior Notes to be redeemed (not including any portion of payments of interest accrued as of the Redemption Date), calculated as if the Maturity Date of such Senior Notes was September 1, 2027 (the date that is three months prior to the Maturity Date), discounted to the Redemption Date on a semi-annual basis at the Adjusted Treasury Rate, plus 15 basis points,

plus, in either of the above cases, accrued and unpaid interest thereon to but not including the Redemption Date; and (b) at any time on or after September 1, 2027 (the date that is three months prior to the Maturity Date) at 100% of the principal amount of the Senior Notes to be redeemed, plus accrued and unpaid interest thereon to but not including the Redemption Date. For purposes of this Senior Note, “Comparable Treasury Issue” means the United States Treasury security selected by the applicable Quotation Agent as having a maturity comparable to the remaining term of this Senior Note, assuming, for such purpose, that this Senior Note matured on September 1, 2027 (the date that is three months prior to the Maturity Date)), that would be used, at the time of the selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of this Senior Note.

Interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to Holders of such Senior Notes, or one or more Predecessor Bonds, of record at the close of business on the relevant Record Dates referred to on the face hereof, all as provided in the Indenture.

In the case of an Optional Redemption, notice of redemption will be in writing and mailed first-class postage-prepaid not less than 10 days nor more than 60 days prior to the Redemption Date to each Holder of Senior Notes to be redeemed at the Holder’s registered address; provided, however, that such notice need not state the dollar amount of the Redemption Price if such dollar amount has not been determined as of the date such notice is being given to the Holders of the Senior Notes being redeemed. If money sufficient to pay the Redemption Price of all Senior Notes (or portions thereof) to be redeemed on the Redemption Date is deposited with the Paying Agent or the Trustee on or prior to the Redemption Date, from and after such Redemption Date such Senior Notes or portions thereof shall cease to bear interest. Senior Notes in denominations larger than \$2,000 in principal amount may be redeemed in part but only in integral multiples of \$1,000.

In the event of redemption of this Senior Note in part only, a new Senior Note or Senior Notes of like tenor for the unredeemed portion hereof will be issued in the name of the Holder hereof upon the surrender hereof.

As provided in the Indenture and subject to certain limitations therein set forth, this Senior Note or any portion of the principal amount hereof will be deemed to have been paid for all purposes of the Indenture and to be no longer Outstanding thereunder, and the Company's entire indebtedness in respect thereof will be satisfied and discharged, if there has been irrevocably deposited with the Trustee or any Paying Agent (other than the Company), in trust, money in an amount which will be sufficient and/or Eligible Obligations, the principal of and interest on which when due, without regard to any reinvestment thereof, will provide moneys which, together with money, if any, deposited with or held by the Trustee or such Paying Agent, will be sufficient to pay when due the principal of and premium, if any, and interest on this Senior Note when due.

If an Event of Default shall occur and be continuing, the Trustee or the Holders of not less than 33% in aggregate principal amount of the Outstanding Bonds, considered as one class, may declare the principal amount of all Bonds then Outstanding to be due and payable immediately by notice in writing to the Company (and to the Trustee if given by Holders); provided, however, that with respect to certain Events of Default relating to bankruptcy, insolvency and similar events, the principal amount of all Bonds then Outstanding shall be due and payable immediately without further action by the Trustee or the Holders.

The Indenture permits, with certain exceptions as therein provided, the Company and the Trustee to enter into one or more supplemental indentures for the purpose of adding any provisions to, or changing in any manner or eliminating any of the provisions of, the Indenture with the consent of the Holders of not less than a majority in aggregate principal amount of the Bonds at the time Outstanding, considered as one class; provided, however, that if there shall be Bonds of more than one series Outstanding under the Indenture and if a proposed supplemental indenture shall directly affect the rights of the Holders of Bonds of one or more, but less than all, of such series, then the consent only of the Holders of a majority in aggregate principal amount of the Outstanding Bonds of all series so directly affected, considered as one class, shall be required; and provided, further, that the Indenture permits the Company and the Trustee to enter into one or more supplemental indentures for certain purposes without the consent of any Holders of Bonds. The Indenture also contains provisions permitting the Holders of a majority in aggregate principal amount of Bonds, on behalf of the Holders of all such Bonds, to waive certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Senior Note shall be conclusive and binding upon such Holder and upon all future Holders of this Senior Note and of any Senior Note issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Senior Note.

As provided in and subject to the provisions of the Indenture, the Holder of this Senior Note shall not have the right to institute any proceeding with respect to the Indenture or for the appointment of a receiver or trustee or for any other remedy thereunder, unless such Holder shall have previously given the Trustee written notice of a continuing Event of Default, the Holders of at least 33% in aggregate principal amount of the Bonds at the time Outstanding shall have made written request to the Trustee to institute proceedings in respect of such Event of Default as Trustee and offered the Trustee reasonable indemnity, and the Trustee shall not have received from the Holders of at least a majority in aggregate principal amount of Bonds at the time Outstanding a direction inconsistent with such written request, and shall have failed to institute any such proceeding for 60 days after receipt of such notice, request and offer of indemnity. The foregoing shall not apply to any suit instituted by the Holder of this Senior Note for the enforcement of any payment of principal hereof or any premium or interest hereon on or after the respective due dates expressed herein.

No reference herein to the Indenture and no provision of this Senior Note or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and any premium and interest on this Senior Note at the times, place and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Senior Note is registrable in the Bond Register, upon surrender of this Senior Note for registration of transfer at the office or agency of the Company in any place where the principal of and any premium and interest on this Senior Note are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company, the Trustee or the Bond Registrar, as the case may be, duly executed by the Holder hereof or such Holder's attorney duly authorized in writing, and thereupon one or more new Senior Notes of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Senior Notes are issuable only in registered form without coupons in denominations of \$100,000 and any integral multiple of \$1,000 in excess thereof. As provided in the Indenture and subject to certain limitations therein set forth, Senior Notes are exchangeable for a like aggregate principal amount of Senior Notes and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

The Company shall not be required to execute or to provide for the registration of the transfer of or the exchange of (A) any Senior Note of this series during a period of 15 days immediately preceding the date notice is to be given identifying the serial numbers of the Senior Notes called for redemption, or (B) any Senior Note selected for redemption in whole or in part, except the unredeemed portion of any Senior Note being redeemed in part.

Prior to due presentment of this Senior Note for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Senior Note is registered as the owner hereof for all purposes, whether or not this Senior Note is overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

This Senior Note shall be governed by, and construed and enforced in accordance with, the laws of the State of New York without regard to the principles of conflicts of laws thereunder, except to the extent that the Trust Indenture Act shall be applicable.

As provided in the Indenture, no recourse shall be had for the payment of the principal of, premium, if any, or interest with respect to this Senior Note, or any part thereof, or for any claim based hereon or otherwise in respect hereof, or of the indebtedness represented hereby, or upon any obligation, covenant or agreement under the Indenture or the Registration Rights Agreement, against any incorporator, shareholder, officer or director, as such, past, present or future, of the Company or of any predecessor or successor corporation (either directly or through the Company or a predecessor or successor corporation), whether by virtue of any constitutional provision, statute or rule of law or by the enforcement of any assessment or penalty or otherwise; it being expressly agreed and understood that the Indenture and all the Bonds are solely corporate obligations and that any such personal liability is hereby expressly waived and released as a condition of, and as part of the consideration for, the execution of the Indenture and the issuance of this Senior Note.

All terms used in this Senior Note which are not defined herein shall have the meanings assigned to them in the Indenture.

ASSIGNMENT FORM

To assign this Security, fill in the form below:

I or we assign and transfer this Security to

(Print or type assignee's name, address and zip code)

(Insert assignee's soc. sec. or tax I.D. No.)

and irrevocably appoint _____ agent to transfer this Security on the books of the Company. The agent may substitute another to act for him.

Date: _____ Your signature: _____

Sign exactly as your name appears on the other side of this Security.

Signature Guarantee:

(Signature must be guaranteed)

Signatures must be guaranteed by an "eligible guarantor institution" meeting the requirements of the Registrar, which requirements include membership or participation in the Security Transfer Agent Medallion Program ("STAMP") or such other "signature guarantee program" as may be determined by the Registrar in addition to, or in substitution for, STAMP, all in accordance with the Securities Exchange Act of 1934, as amended.

In connection with any transfer of any of the Securities evidenced by this certificate occurring prior to one year (or such shorter period of time as permitted by Rule 144 under the Securities Act or any successor provision thereto) after the later of the Issue Date hereof and the last date, if any, on which such Securities were owned by the Company or any Affiliate of the Company (or, in the case of Regulation S Securities, prior to the expiration of the Restricted Period), the undersigned confirms that such Securities are being transferred in accordance with their terms:

CHECK ONE BOX BELOW

- (1) ☐ to the Company or any Subsidiary thereof; or
- (2) ☐ pursuant to a registration statement which has become effective under the Securities Act of 1933, as amended (the "Securities Act"); or
- (3) ☐ for so long as the Securities are eligible for resale pursuant to Rule 144A, to a person who the undersigned reasonably believes is a "qualified institutional buyer" (as defined in Rule 144A under the Securities Act) that is purchasing for its own account or for the account of a qualified institutional buyer to whom notice is given that such transfer is being made in reliance on Rule 144A, in each case pursuant to and in compliance with Rule 144A under the Securities Act; or
- (4) ☐ pursuant to offers and sales that occur outside the United States within the meaning of Regulation S under the Securities Act in compliance with Rule 904 under the Securities Act; or
- (5) ☐ pursuant to another exemption from registration under the Securities Act.

Unless one of the boxes is checked, the Trustee will refuse to register any of the Securities evidenced by this certificate in the name of any person other than the registered holder thereof; *provided, however*, that if box (5) is checked, the Company and the Trustee shall be entitled to require, prior to registering any such transfer of the Securities, such legal opinions, certifications or other evidence as may reasonably be required in order to

determine that the proposed transfer is being made in compliance with the Securities Act and applicable state securities laws.

Signature

SCHEDULE OF EXCHANGES OF INTERESTS IN THE GLOBAL BOND

The initial principal amount of this Global Bond is \$500,000,000. The following increases or decreases in this Global Bond have been made:

Date of Exchange	Amount of decrease in Principal Amount of this Global Bond	Amount of increase in Principal Amount of this Global Bond	Principal Amount of this Global Bond following such decrease (or increase)	Signature of authorized officer of Trustee or Depository
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3.30% SENIOR NOTES DUE DECEMBER 1, 2027

THIS BOND IS A GLOBAL BOND WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY (AS DEFINED IN THE INDENTURE) OR A NOMINEE THEREOF. THIS GLOBAL BOND IS EXCHANGEABLE FOR BONDS REGISTERED IN THE NAME OF ANY PERSON OTHER THAN SUCH DEPOSITARY OR ITS NOMINEE ONLY IN LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE AND, UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR BONDS IN CERTIFICATED FORM, THIS GLOBAL BOND MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITARY TO A NOMINEE OF THE DEPOSITARY, OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANOTHER NOMINEE OF THE DEPOSITARY, OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY.

UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITARY TRUST COMPANY, A NEW YORK CORPORATION (“DTC”), TO THE COMPANY (AS DEFINED BELOW) OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY BOND ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

THIS BOND HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED PRIOR TO (I) THE DATE (THE “RESALE RESTRICTION TERMINATION DATE”) THAT IS ONE YEAR AFTER THE LAST ORIGINAL ISSUE DATE HEREOF OR SUCH SHORTER PERIOD OF TIME AS PERMITTED BY RULE 144 UNDER THE SECURITIES ACT OR ANY SUCCESSOR PROVISION THERETO AND (II) A LATER DATE, IF ANY, AS MAY BE REQUIRED BY APPLICABLE LAW, OTHER THAN (A)(1) TO PACIFIC GAS AND ELECTRIC COMPANY (THE “COMPANY”) OR ONE OF ITS SUBSIDIARIES, (2) IN A TRANSACTION ENTITLED TO AN EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT, (3) SO LONG AS THIS BOND IS ELIGIBLE FOR RESALE PURSUANT TO RULE 144A UNDER THE SECURITIES ACT (“RULE 144A”), TO A PERSON WHOM THE SELLER REASONABLY BELIEVES IS A “QUALIFIED INSTITUTIONAL BUYER” WITHIN THE MEANING OF RULE 144A PURCHASING FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER TO WHOM NOTICE IS GIVEN THAT THE RESALE, PLEDGE OR OTHER TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A (AS INDICATED BY THE BOX

CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (4) IN AN OFFSHORE TRANSACTION IN ACCORDANCE WITH RULE 903 OR RULE 904 OF REGULATION S UNDER THE SECURITIES ACT (AS INDICATED BY THE BOX CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (5) IN ACCORDANCE WITH ANOTHER APPLICABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT (AND BASED UPON AN OPINION OF COUNSEL ACCEPTABLE TO THE COMPANY) OR (6) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT AND (B) IN EACH CASE IN ACCORDANCE WITH ANY APPLICABLE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES OR IN ANY OTHER APPLICABLE JURISDICTION. THE HOLDER HEREOF, BY PURCHASING THIS BOND, REPRESENTS AND AGREES FOR THE BENEFIT OF THE COMPANY THAT IT IS (1) A QUALIFIED INSTITUTIONAL BUYER WITHIN THE MEANING OF RULE 144A OR (2) A NON-US PERSON OUTSIDE THE UNITED STATES WITHIN THE MEANING OF, OR AN ACCOUNT SATISFYING THE REQUIREMENTS OF PARAGRAPH (K)(2) OF RULE 902 UNDER, REGULATION S UNDER THE SECURITIES ACT”.

SOLELY FOR UNITED STATES FEDERAL INCOME TAX PURPOSES, THIS BOND WILL BE TREATED AS ISSUED WITH ORIGINAL ISSUE DISCOUNT (“OID”). UPON REQUEST, THE COMPANY WILL PROMPTLY MAKE AVAILABLE TO A HOLDER OF THIS BOND THE FOLLOWING INFORMATION: (1) THE ISSUE PRICE AND ISSUE DATE OF THIS BOND, (2) THE AMOUNT OF OID, (3) THE YIELD TO MATURITY OF THIS BOND, AND (4) ANY OTHER INFORMATION REQUIRED TO BE MADE AVAILABLE BY U.S. TREASURY REGULATIONS. HOLDERS SHOULD CONTACT THE CHIEF FINANCIAL OFFICER AT 77 BEALE STREET, SAN FRANCISCO, CA 94105.

THE FOLLOWING SUMMARY OF TERMS IS SUBJECT TO THE INFORMATION SET FORTH ON THE REVERSE HEREOF:

PRINCIPAL AMOUNT:
\$500,000,000

ISSUE DATE:
November 29, 2017

INTEREST RATE:
3.30% per annum

MATURITY DATE:
December 1, 2027

INTEREST PAYMENT DATES:
June 1 and December 1, commencing
June 1, 2018

THIS SENIOR NOTE IS A:
☒ Global Book-Entry Bond
☐ Certificated Bond

REGISTERED OWNER: Cede & Co.,
as nominee of The Depository Trust
Company

PACIFIC GAS AND ELECTRIC COMPANY

3.30% SENIOR NOTES DUE DECEMBER 1, 2027

(Fixed Rate)

No. A-2
CUSIP No: 694308 HV2

Principal Amount: \$500,000,000

PACIFIC GAS AND ELECTRIC COMPANY, a corporation duly organized and existing under the laws of the State of California (herein called the “Company,” which term includes any successor Person pursuant to the applicable provisions of the Indenture hereinafter referred to), for value received, hereby promises to pay to Cede & Co., as nominee for The Depository Trust Company, or registered assigns, the Principal Amount stated above on the Maturity Date stated above, and to pay interest thereon from and including the Issue Date stated above or, in the case of a 3.30% Senior Note due December 1, 2027 issued upon the registration of transfer or exchange, from and including the most recent Interest Payment Date to which interest has been paid or duly provided for, semi-annually in arrears on the Interest Payment Dates set forth above and on the Maturity Date stated above, commencing June 1, 2018 at the rate of 3.30% per annum until the principal hereof is paid or made available for payment; provided, however, that, upon the occurrence or failure to occur of certain events specified in the Registration Rights Agreement, the Company shall, subject to the terms and conditions set forth in the Registration Rights Agreement, pay additional interest on the principal amount of this Note after such event occurs or fails to occur so long as such event continues or fails to occur, as the case may be. Such additional interest shall be payable in addition to any other interest payable from time to time with respect to this Note. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this 3.30% Senior Note due December 1, 2027 (this “Senior Note,” and together with all other 3.30% Senior Notes due December 1, 2027, the “Senior Notes”) (or one or more Predecessor Bonds) is registered at the close of business on the Regular Record Date for such interest, which shall be the May 15 and November 15 preceding such Interest Payment Date; provided, however, that interest payable at the Maturity Date or on a Redemption Date will be paid to the Person to whom principal is payable. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such Regular Record Date and may either be paid to the Person in whose name this Senior Note (or one or more Predecessor Bonds) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Senior Notes not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of the Indenture and any securities exchange, if any, on which the Senior Notes may be listed, and upon such notice as may be required by any such exchange, all as more fully provided in said Indenture.

Payments of interest on this Senior Note will include interest accrued to but excluding the respective Interest Payment Dates. Interest payments for this Senior Note shall be computed and paid on the basis of the 360-day year of twelve 30-day months and will accrue from November 29, 2017 or from the most recent Interest Payment Date to which interest has been paid or duly provided for. In the event that any date on which interest is payable on this Senior Note (other than the Maturity Date) is not a Business Day then payment of the interest payable on such date will be made on the next succeeding day that is a Business Day (and without any interest or payment in respect of any such delay) with the same force and effect as if made on the date the payment was originally payable. If the Maturity Date falls on a day that is not a Business Day, the payment of principal, premium, if any, and interest may be made on the next succeeding Business Day, and no interest on such payment shall accrue for the period from and after maturity.

Payment of principal of, premium, if any, and interest on Senior Notes shall be made in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts. Payments of principal of, premium, if any, and interest on the Senior Notes represented by a Global Bond shall be made by wire transfer of immediately available funds to the Holder of such Global Bond, provided that, in the case of payments of principal and premium, if any, such Global Bond is first surrendered to the Paying Agent. If any of the Senior Notes are no longer represented by a Global Bond, (i)

payments of principal, premium, if any, and interest due on the Maturity Date or earlier redemption of such Senior Notes shall be made at the office of the Paying Agent upon surrender of such Senior Notes to the Paying Agent, and (ii) payments of interest shall be made, at the option of the Company, subject to such surrender where applicable, (A) by check mailed to the address of the Person entitled thereto as such address shall appear in the Bond Register or (B) by wire transfer to registered Holders of at least \$10,000,000 in principal amount of Senior Notes at such place and to such account at a banking institution in the United States as such Holders may designate in writing to the Trustee at least sixteen (16) days prior to the date for payment.

REFERENCE IS HEREBY MADE TO THE FURTHER PROVISIONS OF THIS SENIOR NOTE SET FORTH ON THE REVERSE HEREOF, WHICH FURTHER PROVISIONS SHALL FOR ALL PURPOSES HAVE THE SAME EFFECT AS IF SET FORTH AT THIS PLACE.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Senior Note shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____, 2017

PACIFIC GAS AND ELECTRIC COMPANY

By: David S. Thomason

Name: David S. Thomason

Title: Vice President, Chief Financial Officer and Controller

By: _____

Name: Nicholas M. Bijur

Title: Vice President and Treasurer

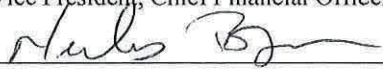
[Signature Page to the 144A Fixed Rate Global Note due 2027]

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____, 2017

PACIFIC GAS AND ELECTRIC COMPANY

By: _____
Name: David S. Thomason
Title: Vice President, Chief Financial Officer and Controller

By:  _____
Name: Nicholas M. Bijur
Title: Vice President and Treasurer

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

This Senior Note is one of the Bonds of the series designated as 2027 Notes referred to in the within-mentioned Indenture.

Dated: 11-29-2017

THE BANK OF NEW YORK MELLON TRUST
COMPANY, N.A., *As Trustee*

By: _____


Authorized Signatory

Reverse of Senior Note

This 3.30% Senior Note due December 1, 2027 is one of a duly authorized issue of Bonds of the Company, issued and issuable in one or more series under the Indenture, dated as of November 29, 2017 (the “Indenture”), between the Company and The Bank of New York Mellon Trust Company, N.A., as Trustee (herein called the “Trustee,” which term includes any successor trustee under the Indenture), and reference is hereby made to the Indenture for a description of the respective rights, limitations of rights, duties and immunities of the Company, the Trustee and the Holders of Bonds thereunder and of the terms and conditions upon which Bonds are, and are to be, authenticated and delivered. This Senior Note is a Bond within the meaning of the Indenture and is designated as the 3.30% Senior Notes due December 1, 2027 established by the Company under the Indenture and initially issued in an aggregate principal amount of \$1,150,000,000 on November 29, 2017. The acceptance of this Senior Note shall be deemed to constitute the consent and agreement by the Holder hereof to all of the terms and provisions of the Indenture.

Subject to the terms and conditions of the Indenture, the Senior Notes are redeemable at the option of the Company (“Optional Redemption”), in whole or in part, (a) at any time prior to September 1, 2027 (the date that is three months prior to the Maturity Date) at a Redemption Price equal to the greater of:

(i) 100% of the principal amount of the Senior Notes to be redeemed; or

(ii) as determined by the Quotation Agent, the sum of the present values of the Remaining Scheduled Payments of principal and interest on the Senior Notes to be redeemed (not including any portion of payments of interest accrued as of the Redemption Date), calculated as if the Maturity Date of such Senior Notes was September 1, 2027 (the date that is three months prior to the Maturity Date), discounted to the Redemption Date on a semi-annual basis at the Adjusted Treasury Rate, plus 15 basis points,

plus, in either of the above cases, accrued and unpaid interest thereon to but not including the Redemption Date; and (b) at any time on or after September 1, 2027 (the date that is three months prior to the Maturity Date) at 100% of the principal amount of the Senior Notes to be redeemed, plus accrued and unpaid interest thereon to but not including the Redemption Date. For purposes of this Senior Note, “Comparable Treasury Issue” means the United States Treasury security selected by the applicable Quotation Agent as having a maturity comparable to the remaining term of this Senior Note, assuming, for such purpose, that this Senior Note matured on September 1, 2027 (the date that is three months prior to the Maturity Date)), that would be used, at the time of the selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of this Senior Note.

Interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to Holders of such Senior Notes, or one or more Predecessor Bonds, of record at the close of business on the relevant Record Dates referred to on the face hereof, all as provided in the Indenture.

In the case of an Optional Redemption, notice of redemption will be in writing and mailed first-class postage-prepaid not less than 10 days nor more than 60 days prior to the Redemption Date to each Holder of Senior Notes to be redeemed at the Holder’s registered address; provided, however, that such notice need not state the dollar amount of the Redemption Price if such dollar amount has not been determined as of the date such notice is being given to the Holders of the Senior Notes being redeemed. If money sufficient to pay the Redemption Price of all Senior Notes (or portions thereof) to be redeemed on the Redemption Date is deposited with the Paying Agent or the Trustee on or prior to the Redemption Date, from and after such Redemption Date such Senior Notes or portions thereof shall cease to bear interest. Senior Notes in denominations larger than \$2,000 in principal amount may be redeemed in part but only in integral multiples of \$1,000.

In the event of redemption of this Senior Note in part only, a new Senior Note or Senior Notes of like tenor for the unredeemed portion hereof will be issued in the name of the Holder hereof upon the surrender hereof.

As provided in the Indenture and subject to certain limitations therein set forth, this Senior Note or any portion of the principal amount hereof will be deemed to have been paid for all purposes of the Indenture and to be no longer Outstanding thereunder, and the Company's entire indebtedness in respect thereof will be satisfied and discharged, if there has been irrevocably deposited with the Trustee or any Paying Agent (other than the Company), in trust, money in an amount which will be sufficient and/or Eligible Obligations, the principal of and interest on which when due, without regard to any reinvestment thereof, will provide moneys which, together with money, if any, deposited with or held by the Trustee or such Paying Agent, will be sufficient to pay when due the principal of and premium, if any, and interest on this Senior Note when due.

If an Event of Default shall occur and be continuing, the Trustee or the Holders of not less than 33% in aggregate principal amount of the Outstanding Bonds, considered as one class, may declare the principal amount of all Bonds then Outstanding to be due and payable immediately by notice in writing to the Company (and to the Trustee if given by Holders); provided, however, that with respect to certain Events of Default relating to bankruptcy, insolvency and similar events, the principal amount of all Bonds then Outstanding shall be due and payable immediately without further action by the Trustee or the Holders.

The Indenture permits, with certain exceptions as therein provided, the Company and the Trustee to enter into one or more supplemental indentures for the purpose of adding any provisions to, or changing in any manner or eliminating any of the provisions of, the Indenture with the consent of the Holders of not less than a majority in aggregate principal amount of the Bonds at the time Outstanding, considered as one class; provided, however, that if there shall be Bonds of more than one series Outstanding under the Indenture and if a proposed supplemental indenture shall directly affect the rights of the Holders of Bonds of one or more, but less than all, of such series, then the consent only of the Holders of a majority in aggregate principal amount of the Outstanding Bonds of all series so directly affected, considered as one class, shall be required; and provided, further, that the Indenture permits the Company and the Trustee to enter into one or more supplemental indentures for certain purposes without the consent of any Holders of Bonds. The Indenture also contains provisions permitting the Holders of a majority in aggregate principal amount of Bonds, on behalf of the Holders of all such Bonds, to waive certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Senior Note shall be conclusive and binding upon such Holder and upon all future Holders of this Senior Note and of any Senior Note issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Senior Note.

As provided in and subject to the provisions of the Indenture, the Holder of this Senior Note shall not have the right to institute any proceeding with respect to the Indenture or for the appointment of a receiver or trustee or for any other remedy thereunder, unless such Holder shall have previously given the Trustee written notice of a continuing Event of Default, the Holders of at least 33% in aggregate principal amount of the Bonds at the time Outstanding shall have made written request to the Trustee to institute proceedings in respect of such Event of Default as Trustee and offered the Trustee reasonable indemnity, and the Trustee shall not have received from the Holders of at least a majority in aggregate principal amount of Bonds at the time Outstanding a direction inconsistent with such written request, and shall have failed to institute any such proceeding for 60 days after receipt of such notice, request and offer of indemnity. The foregoing shall not apply to any suit instituted by the Holder of this Senior Note for the enforcement of any payment of principal hereof or any premium or interest hereon on or after the respective due dates expressed herein.

No reference herein to the Indenture and no provision of this Senior Note or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and any premium and interest on this Senior Note at the times, place and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Senior Note is registrable in the Bond Register, upon surrender of this Senior Note for registration of transfer at the office or agency of the Company in any place where the principal of and any premium and interest on this Senior Note are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company, the Trustee or the Bond Registrar, as the case may be, duly executed by the Holder hereof or such Holder's attorney duly authorized in writing, and thereupon one or more new Senior Notes of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Senior Notes are issuable only in registered form without coupons in denominations of \$100,000 and any integral multiple of \$1,000 in excess thereof. As provided in the Indenture and subject to certain limitations therein set forth, Senior Notes are exchangeable for a like aggregate principal amount of Senior Notes and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

The Company shall not be required to execute or to provide for the registration of the transfer of or the exchange of (A) any Senior Note of this series during a period of 15 days immediately preceding the date notice is to be given identifying the serial numbers of the Senior Notes called for redemption, or (B) any Senior Note selected for redemption in whole or in part, except the unredeemed portion of any Senior Note being redeemed in part.

Prior to due presentment of this Senior Note for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Senior Note is registered as the owner hereof for all purposes, whether or not this Senior Note is overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

This Senior Note shall be governed by, and construed and enforced in accordance with, the laws of the State of New York without regard to the principles of conflicts of laws thereunder, except to the extent that the Trust Indenture Act shall be applicable.

As provided in the Indenture, no recourse shall be had for the payment of the principal of, premium, if any, or interest with respect to this Senior Note, or any part thereof, or for any claim based hereon or otherwise in respect hereof, or of the indebtedness represented hereby, or upon any obligation, covenant or agreement under the Indenture or the Registration Rights Agreement, against any incorporator, shareholder, officer or director, as such, past, present or future, of the Company or of any predecessor or successor corporation (either directly or through the Company or a predecessor or successor corporation), whether by virtue of any constitutional provision, statute or rule of law or by the enforcement of any assessment or penalty or otherwise; it being expressly agreed and understood that the Indenture and all the Bonds are solely corporate obligations and that any such personal liability is hereby expressly waived and released as a condition of, and as part of the consideration for, the execution of the Indenture and the issuance of this Senior Note.

All terms used in this Senior Note which are not defined herein shall have the meanings assigned to them in the Indenture.

ASSIGNMENT FORM

To assign this Security, fill in the form below:

I or we assign and transfer this Security to

(Print or type assignee's name, address and zip code)

(Insert assignee's soc. sec. or tax I.D. No.)

and irrevocably appoint _____ agent to transfer this Security on the books of the Company. The agent may substitute another to act for him.

Date: _____ Your signature: _____

Sign exactly as your name appears on the other side of this Security.

Signature Guarantee:

(Signature must be guaranteed)

Signatures must be guaranteed by an "eligible guarantor institution" meeting the requirements of the Registrar, which requirements include membership or participation in the Security Transfer Agent Medallion Program ("STAMP") or such other "signature guarantee program" as may be determined by the Registrar in addition to, or in substitution for, STAMP, all in accordance with the Securities Exchange Act of 1934, as amended.

In connection with any transfer of any of the Securities evidenced by this certificate occurring prior to one year (or such shorter period of time as permitted by Rule 144 under the Securities Act or any successor provision thereto) after the later of the Issue Date hereof and the last date, if any, on which such Securities were owned by the Company or any Affiliate of the Company (or, in the case of Regulation S Securities, prior to the expiration of the Restricted Period), the undersigned confirms that such Securities are being transferred in accordance with their terms:

CHECK ONE BOX BELOW

- (1) ☐ to the Company or any Subsidiary thereof; or
- (2) ☐ pursuant to a registration statement which has become effective under the Securities Act of 1933, as amended (the "Securities Act"); or
- (3) ☐ for so long as the Securities are eligible for resale pursuant to Rule 144A, to a person who the undersigned reasonably believes is a "qualified institutional buyer" (as defined in Rule 144A under the Securities Act) that is purchasing for its own account or for the account of a qualified institutional buyer to whom notice is given that such transfer is being made in reliance on Rule 144A, in each case pursuant to and in compliance with Rule 144A under the Securities Act; or
- (4) ☐ pursuant to offers and sales that occur outside the United States within the meaning of Regulation S under the Securities Act in compliance with Rule 904 under the Securities Act; or
- (5) ☐ pursuant to another exemption from registration under the Securities Act.

Unless one of the boxes is checked, the Trustee will refuse to register any of the Securities evidenced by this certificate in the name of any person other than the registered holder thereof; *provided, however*, that if box (5) is checked, the Company and the Trustee shall be entitled to require, prior to registering any such transfer of the Securities, such legal opinions, certifications or other evidence as may reasonably be required in order to

determine that the proposed transfer is being made in compliance with the Securities Act and applicable state securities laws.

Signature

SCHEDULE OF EXCHANGES OF INTERESTS IN THE GLOBAL BOND

The initial principal amount of this Global Bond is \$500,000,000. The following increases or decreases in this Global Bond have been made:

Date of Exchange	Amount of decrease in Principal Amount of this Global Bond	Amount of increase in Principal Amount of this Global Bond	Principal Amount of this Global Bond following such decrease (or increase)	Signature of authorized officer of Trustee or Depository
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3.30% SENIOR NOTES DUE DECEMBER 1, 2027

THIS BOND IS A GLOBAL BOND WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY (AS DEFINED IN THE INDENTURE) OR A NOMINEE THEREOF. THIS GLOBAL BOND IS EXCHANGEABLE FOR BONDS REGISTERED IN THE NAME OF ANY PERSON OTHER THAN SUCH DEPOSITARY OR ITS NOMINEE ONLY IN LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE AND, UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR BONDS IN CERTIFICATED FORM, THIS GLOBAL BOND MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITARY TO A NOMINEE OF THE DEPOSITARY, OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANOTHER NOMINEE OF THE DEPOSITARY, OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY.

UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITARY TRUST COMPANY, A NEW YORK CORPORATION (“DTC”), TO THE COMPANY (AS DEFINED BELOW) OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY BOND ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

THIS BOND HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED PRIOR TO (I) THE DATE (THE “RESALE RESTRICTION TERMINATION DATE”) THAT IS ONE YEAR AFTER THE LAST ORIGINAL ISSUE DATE HEREOF OR SUCH SHORTER PERIOD OF TIME AS PERMITTED BY RULE 144 UNDER THE SECURITIES ACT OR ANY SUCCESSOR PROVISION THERETO AND (II) A LATER DATE, IF ANY, AS MAY BE REQUIRED BY APPLICABLE LAW, OTHER THAN (A)(1) TO PACIFIC GAS AND ELECTRIC COMPANY (THE “COMPANY”) OR ONE OF ITS SUBSIDIARIES, (2) IN A TRANSACTION ENTITLED TO AN EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT, (3) SO LONG AS THIS BOND IS ELIGIBLE FOR RESALE PURSUANT TO RULE 144A UNDER THE SECURITIES ACT (“RULE 144A”), TO A PERSON WHOM THE SELLER REASONABLY BELIEVES IS A “QUALIFIED INSTITUTIONAL BUYER” WITHIN THE MEANING OF RULE 144A PURCHASING FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER TO WHOM NOTICE IS GIVEN THAT THE RESALE, PLEDGE OR OTHER TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A (AS INDICATED BY THE BOX

CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (4) IN AN OFFSHORE TRANSACTION IN ACCORDANCE WITH RULE 903 OR RULE 904 OF REGULATION S UNDER THE SECURITIES ACT (AS INDICATED BY THE BOX CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (5) IN ACCORDANCE WITH ANOTHER APPLICABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT (AND BASED UPON AN OPINION OF COUNSEL ACCEPTABLE TO THE COMPANY) OR (6) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT AND (B) IN EACH CASE IN ACCORDANCE WITH ANY APPLICABLE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES OR IN ANY OTHER APPLICABLE JURISDICTION. THE HOLDER HEREOF, BY PURCHASING THIS BOND, REPRESENTS AND AGREES FOR THE BENEFIT OF THE COMPANY THAT IT IS (1) A QUALIFIED INSTITUTIONAL BUYER WITHIN THE MEANING OF RULE 144A OR (2) A NON-US PERSON OUTSIDE THE UNITED STATES WITHIN THE MEANING OF, OR AN ACCOUNT SATISFYING THE REQUIREMENTS OF PARAGRAPH (K)(2) OF RULE 902 UNDER, REGULATION S UNDER THE SECURITIES ACT”.

SOLELY FOR UNITED STATES FEDERAL INCOME TAX PURPOSES, THIS BOND WILL BE TREATED AS ISSUED WITH ORIGINAL ISSUE DISCOUNT (“OID”). UPON REQUEST, THE COMPANY WILL PROMPTLY MAKE AVAILABLE TO A HOLDER OF THIS BOND THE FOLLOWING INFORMATION: (1) THE ISSUE PRICE AND ISSUE DATE OF THIS BOND, (2) THE AMOUNT OF OID, (3) THE YIELD TO MATURITY OF THIS BOND, AND (4) ANY OTHER INFORMATION REQUIRED TO BE MADE AVAILABLE BY U.S. TREASURY REGULATIONS. HOLDERS SHOULD CONTACT THE CHIEF FINANCIAL OFFICER AT 77 BEALE STREET, SAN FRANCISCO, CA 94105.

THE FOLLOWING SUMMARY OF TERMS IS SUBJECT TO THE INFORMATION SET FORTH ON THE REVERSE HEREOF:

PRINCIPAL AMOUNT:
\$109,400,000

ISSUE DATE:
November 29, 2017

INTEREST RATE:
3.30% per annum

MATURITY DATE:
December 1, 2027

INTEREST PAYMENT DATES:
June 1 and December 1, commencing
June 1, 2018

THIS SENIOR NOTE IS A:
☒ Global Book-Entry Bond
☐ Certificated Bond

REGISTERED OWNER: Cede & Co.,
as nominee of The Depository Trust
Company

PACIFIC GAS AND ELECTRIC COMPANY

3.30% SENIOR NOTES DUE DECEMBER 1, 2027

(Fixed Rate)

No. A-3
CUSIP No: 694308 HV2

Principal Amount: \$109,400,000

PACIFIC GAS AND ELECTRIC COMPANY, a corporation duly organized and existing under the laws of the State of California (herein called the “Company,” which term includes any successor Person pursuant to the applicable provisions of the Indenture hereinafter referred to), for value received, hereby promises to pay to Cede & Co., as nominee for The Depository Trust Company, or registered assigns, the Principal Amount stated above on the Maturity Date stated above, and to pay interest thereon from and including the Issue Date stated above or, in the case of a 3.30% Senior Note due December 1, 2027 issued upon the registration of transfer or exchange, from and including the most recent Interest Payment Date to which interest has been paid or duly provided for, semi-annually in arrears on the Interest Payment Dates set forth above and on the Maturity Date stated above, commencing June 1, 2018 at the rate of 3.30% per annum until the principal hereof is paid or made available for payment; provided, however, that, upon the occurrence or failure to occur of certain events specified in the Registration Rights Agreement, the Company shall, subject to the terms and conditions set forth in the Registration Rights Agreement, pay additional interest on the principal amount of this Note after such event occurs or fails to occur so long as such event continues or fails to occur, as the case may be. Such additional interest shall be payable in addition to any other interest payable from time to time with respect to this Note. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this 3.30% Senior Note due December 1, 2027 (this “Senior Note,” and together with all other 3.30% Senior Notes due December 1, 2027, the “Senior Notes”) (or one or more Predecessor Bonds) is registered at the close of business on the Regular Record Date for such interest, which shall be the May 15 and November 15 preceding such Interest Payment Date; provided, however, that interest payable at the Maturity Date or on a Redemption Date will be paid to the Person to whom principal is payable. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such Regular Record Date and may either be paid to the Person in whose name this Senior Note (or one or more Predecessor Bonds) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Senior Notes not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of the Indenture and any securities exchange, if any, on which the Senior Notes may be listed, and upon such notice as may be required by any such exchange, all as more fully provided in said Indenture.

Payments of interest on this Senior Note will include interest accrued to but excluding the respective Interest Payment Dates. Interest payments for this Senior Note shall be computed and paid on the basis of the 360-day year of twelve 30-day months and will accrue from November 29, 2017 or from the most recent Interest Payment Date to which interest has been paid or duly provided for. In the event that any date on which interest is payable on this Senior Note (other than the Maturity Date) is not a Business Day then payment of the interest payable on such date will be made on the next succeeding day that is a Business Day (and without any interest or payment in respect of any such delay) with the same force and effect as if made on the date the payment was originally payable. If the Maturity Date falls on a day that is not a Business Day, the payment of principal, premium, if any, and interest may be made on the next succeeding Business Day, and no interest on such payment shall accrue for the period from and after maturity.

Payment of principal of, premium, if any, and interest on Senior Notes shall be made in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts. Payments of principal of, premium, if any, and interest on the Senior Notes represented by a Global Bond shall be made by wire transfer of immediately available funds to the Holder of such Global Bond, provided that, in the case of payments of principal and premium, if any, such Global Bond is first surrendered to the Paying Agent. If any of the Senior Notes are no longer represented by a Global Bond, (i)

payments of principal, premium, if any, and interest due on the Maturity Date or earlier redemption of such Senior Notes shall be made at the office of the Paying Agent upon surrender of such Senior Notes to the Paying Agent, and (ii) payments of interest shall be made, at the option of the Company, subject to such surrender where applicable, (A) by check mailed to the address of the Person entitled thereto as such address shall appear in the Bond Register or (B) by wire transfer to registered Holders of at least \$10,000,000 in principal amount of Senior Notes at such place and to such account at a banking institution in the United States as such Holders may designate in writing to the Trustee at least sixteen (16) days prior to the date for payment.

REFERENCE IS HEREBY MADE TO THE FURTHER PROVISIONS OF THIS SENIOR NOTE SET FORTH ON THE REVERSE HEREOF, WHICH FURTHER PROVISIONS SHALL FOR ALL PURPOSES HAVE THE SAME EFFECT AS IF SET FORTH AT THIS PLACE.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Senior Note shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____, 2017

PACIFIC GAS AND ELECTRIC COMPANY

By: David S. Thomason

Name: David S. Thomason

Title: Vice President, Chief Financial Officer and Controller

By: _____

Name: Nicholas M. Bijur

Title: Vice President and Treasurer

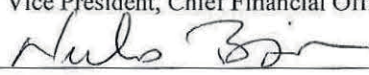
[Signature Page to the 144A Fixed Rate Global Note due 2027]

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____, 2017

PACIFIC GAS AND ELECTRIC COMPANY

By: _____
Name: David S. Thomason
Title: Vice President, Chief Financial Officer and Controller

By:  _____
Name: Nicholas M. Bijur
Title: Vice President and Treasurer

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

This Senior Note is one of the Bonds of the series designated as 2027 Notes referred to in the within-mentioned Indenture.

Dated: 11-29-2017

THE BANK OF NEW YORK MELLON TRUST
COMPANY, N.A., *As Trustee*

By: _____


Authorized Signatory

Reverse of Senior Note

This 3.30% Senior Note due December 1, 2027 is one of a duly authorized issue of Bonds of the Company, issued and issuable in one or more series under the Indenture, dated as of November 29, 2017 (the “Indenture”), between the Company and The Bank of New York Mellon Trust Company, N.A., as Trustee (herein called the “Trustee,” which term includes any successor trustee under the Indenture), and reference is hereby made to the Indenture for a description of the respective rights, limitations of rights, duties and immunities of the Company, the Trustee and the Holders of Bonds thereunder and of the terms and conditions upon which Bonds are, and are to be, authenticated and delivered. This Senior Note is a Bond within the meaning of the Indenture and is designated as the 3.30% Senior Notes due December 1, 2027 established by the Company under the Indenture and initially issued in an aggregate principal amount of \$1,150,000,000 on November 29, 2017. The acceptance of this Senior Note shall be deemed to constitute the consent and agreement by the Holder hereof to all of the terms and provisions of the Indenture.

Subject to the terms and conditions of the Indenture, the Senior Notes are redeemable at the option of the Company (“Optional Redemption”), in whole or in part, (a) at any time prior to September 1, 2027 (the date that is three months prior to the Maturity Date) at a Redemption Price equal to the greater of:

(i) 100% of the principal amount of the Senior Notes to be redeemed; or

(ii) as determined by the Quotation Agent, the sum of the present values of the Remaining Scheduled Payments of principal and interest on the Senior Notes to be redeemed (not including any portion of payments of interest accrued as of the Redemption Date), calculated as if the Maturity Date of such Senior Notes was September 1, 2027 (the date that is three months prior to the Maturity Date), discounted to the Redemption Date on a semi-annual basis at the Adjusted Treasury Rate, plus 15 basis points,

plus, in either of the above cases, accrued and unpaid interest thereon to but not including the Redemption Date; and (b) at any time on or after September 1, 2027 (the date that is three months prior to the Maturity Date) at 100% of the principal amount of the Senior Notes to be redeemed, plus accrued and unpaid interest thereon to but not including the Redemption Date. For purposes of this Senior Note, “Comparable Treasury Issue” means the United States Treasury security selected by the applicable Quotation Agent as having a maturity comparable to the remaining term of this Senior Note, assuming, for such purpose, that this Senior Note matured on September 1, 2027 (the date that is three months prior to the Maturity Date)), that would be used, at the time of the selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of this Senior Note.

Interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to Holders of such Senior Notes, or one or more Predecessor Bonds, of record at the close of business on the relevant Record Dates referred to on the face hereof, all as provided in the Indenture.

In the case of an Optional Redemption, notice of redemption will be in writing and mailed first-class postage-prepaid not less than 10 days nor more than 60 days prior to the Redemption Date to each Holder of Senior Notes to be redeemed at the Holder’s registered address; provided, however, that such notice need not state the dollar amount of the Redemption Price if such dollar amount has not been determined as of the date such notice is being given to the Holders of the Senior Notes being redeemed. If money sufficient to pay the Redemption Price of all Senior Notes (or portions thereof) to be redeemed on the Redemption Date is deposited with the Paying Agent or the Trustee on or prior to the Redemption Date, from and after such Redemption Date such Senior Notes or portions thereof shall cease to bear interest. Senior Notes in denominations larger than \$2,000 in principal amount may be redeemed in part but only in integral multiples of \$1,000.

In the event of redemption of this Senior Note in part only, a new Senior Note or Senior Notes of like tenor for the unredeemed portion hereof will be issued in the name of the Holder hereof upon the surrender hereof.

As provided in the Indenture and subject to certain limitations therein set forth, this Senior Note or any portion of the principal amount hereof will be deemed to have been paid for all purposes of the Indenture and to be no longer Outstanding thereunder, and the Company's entire indebtedness in respect thereof will be satisfied and discharged, if there has been irrevocably deposited with the Trustee or any Paying Agent (other than the Company), in trust, money in an amount which will be sufficient and/or Eligible Obligations, the principal of and interest on which when due, without regard to any reinvestment thereof, will provide moneys which, together with money, if any, deposited with or held by the Trustee or such Paying Agent, will be sufficient to pay when due the principal of and premium, if any, and interest on this Senior Note when due.

If an Event of Default shall occur and be continuing, the Trustee or the Holders of not less than 33% in aggregate principal amount of the Outstanding Bonds, considered as one class, may declare the principal amount of all Bonds then Outstanding to be due and payable immediately by notice in writing to the Company (and to the Trustee if given by Holders); provided, however, that with respect to certain Events of Default relating to bankruptcy, insolvency and similar events, the principal amount of all Bonds then Outstanding shall be due and payable immediately without further action by the Trustee or the Holders.

The Indenture permits, with certain exceptions as therein provided, the Company and the Trustee to enter into one or more supplemental indentures for the purpose of adding any provisions to, or changing in any manner or eliminating any of the provisions of, the Indenture with the consent of the Holders of not less than a majority in aggregate principal amount of the Bonds at the time Outstanding, considered as one class; provided, however, that if there shall be Bonds of more than one series Outstanding under the Indenture and if a proposed supplemental indenture shall directly affect the rights of the Holders of Bonds of one or more, but less than all, of such series, then the consent only of the Holders of a majority in aggregate principal amount of the Outstanding Bonds of all series so directly affected, considered as one class, shall be required; and provided, further, that the Indenture permits the Company and the Trustee to enter into one or more supplemental indentures for certain purposes without the consent of any Holders of Bonds. The Indenture also contains provisions permitting the Holders of a majority in aggregate principal amount of Bonds, on behalf of the Holders of all such Bonds, to waive certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Senior Note shall be conclusive and binding upon such Holder and upon all future Holders of this Senior Note and of any Senior Note issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Senior Note.

As provided in and subject to the provisions of the Indenture, the Holder of this Senior Note shall not have the right to institute any proceeding with respect to the Indenture or for the appointment of a receiver or trustee or for any other remedy thereunder, unless such Holder shall have previously given the Trustee written notice of a continuing Event of Default, the Holders of at least 33% in aggregate principal amount of the Bonds at the time Outstanding shall have made written request to the Trustee to institute proceedings in respect of such Event of Default as Trustee and offered the Trustee reasonable indemnity, and the Trustee shall not have received from the Holders of at least a majority in aggregate principal amount of Bonds at the time Outstanding a direction inconsistent with such written request, and shall have failed to institute any such proceeding for 60 days after receipt of such notice, request and offer of indemnity. The foregoing shall not apply to any suit instituted by the Holder of this Senior Note for the enforcement of any payment of principal hereof or any premium or interest hereon on or after the respective due dates expressed herein.

No reference herein to the Indenture and no provision of this Senior Note or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and any premium and interest on this Senior Note at the times, place and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Senior Note is registrable in the Bond Register, upon surrender of this Senior Note for registration of transfer at the office or agency of the Company in any place where the principal of and any premium and interest on this Senior Note are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company, the Trustee or the Bond Registrar, as the case may be, duly executed by the Holder hereof or such Holder's attorney duly authorized in writing, and thereupon one or more new Senior Notes of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Senior Notes are issuable only in registered form without coupons in denominations of \$100,000 and any integral multiple of \$1,000 in excess thereof. As provided in the Indenture and subject to certain limitations therein set forth, Senior Notes are exchangeable for a like aggregate principal amount of Senior Notes and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

The Company shall not be required to execute or to provide for the registration of the transfer of or the exchange of (A) any Senior Note of this series during a period of 15 days immediately preceding the date notice is to be given identifying the serial numbers of the Senior Notes called for redemption, or (B) any Senior Note selected for redemption in whole or in part, except the unredeemed portion of any Senior Note being redeemed in part.

Prior to due presentment of this Senior Note for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Senior Note is registered as the owner hereof for all purposes, whether or not this Senior Note is overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

This Senior Note shall be governed by, and construed and enforced in accordance with, the laws of the State of New York without regard to the principles of conflicts of laws thereunder, except to the extent that the Trust Indenture Act shall be applicable.

As provided in the Indenture, no recourse shall be had for the payment of the principal of, premium, if any, or interest with respect to this Senior Note, or any part thereof, or for any claim based hereon or otherwise in respect hereof, or of the indebtedness represented hereby, or upon any obligation, covenant or agreement under the Indenture or the Registration Rights Agreement, against any incorporator, shareholder, officer or director, as such, past, present or future, of the Company or of any predecessor or successor corporation (either directly or through the Company or a predecessor or successor corporation), whether by virtue of any constitutional provision, statute or rule of law or by the enforcement of any assessment or penalty or otherwise; it being expressly agreed and understood that the Indenture and all the Bonds are solely corporate obligations and that any such personal liability is hereby expressly waived and released as a condition of, and as part of the consideration for, the execution of the Indenture and the issuance of this Senior Note.

All terms used in this Senior Note which are not defined herein shall have the meanings assigned to them in the Indenture.

ASSIGNMENT FORM

To assign this Security, fill in the form below:

I or we assign and transfer this Security to

(Print or type assignee's name, address and zip code)

(Insert assignee's soc. sec. or tax I.D. No.)

and irrevocably appoint _____ agent to transfer this Security on the books of the Company. The agent may substitute another to act for him.

Date: _____ Your signature: _____

Sign exactly as your name appears on the other side of this Security.

Signature Guarantee:

(Signature must be guaranteed)

Signatures must be guaranteed by an "eligible guarantor institution" meeting the requirements of the Registrar, which requirements include membership or participation in the Security Transfer Agent Medallion Program ("STAMP") or such other "signature guarantee program" as may be determined by the Registrar in addition to, or in substitution for, STAMP, all in accordance with the Securities Exchange Act of 1934, as amended.

In connection with any transfer of any of the Securities evidenced by this certificate occurring prior to one year (or such shorter period of time as permitted by Rule 144 under the Securities Act or any successor provision thereto) after the later of the Issue Date hereof and the last date, if any, on which such Securities were owned by the Company or any Affiliate of the Company (or, in the case of Regulation S Securities, prior to the expiration of the Restricted Period), the undersigned confirms that such Securities are being transferred in accordance with their terms:

CHECK ONE BOX BELOW

- (1) ☐ to the Company or any Subsidiary thereof; or
- (2) ☐ pursuant to a registration statement which has become effective under the Securities Act of 1933, as amended (the "Securities Act"); or
- (3) ☐ for so long as the Securities are eligible for resale pursuant to Rule 144A, to a person who the undersigned reasonably believes is a "qualified institutional buyer" (as defined in Rule 144A under the Securities Act) that is purchasing for its own account or for the account of a qualified institutional buyer to whom notice is given that such transfer is being made in reliance on Rule 144A, in each case pursuant to and in compliance with Rule 144A under the Securities Act; or
- (4) ☐ pursuant to offers and sales that occur outside the United States within the meaning of Regulation S under the Securities Act in compliance with Rule 904 under the Securities Act; or
- (5) ☐ pursuant to another exemption from registration under the Securities Act.

Unless one of the boxes is checked, the Trustee will refuse to register any of the Securities evidenced by this certificate in the name of any person other than the registered holder thereof; *provided, however*, that if box (5) is checked, the Company and the Trustee shall be entitled to require, prior to registering any such transfer of the Securities, such legal opinions, certifications or other evidence as may reasonably be required in order to

determine that the proposed transfer is being made in compliance with the Securities Act and applicable state securities laws.

Signature

SCHEDULE OF EXCHANGES OF INTERESTS IN THE GLOBAL BOND

The initial principal amount of this Global Bond is \$109,400,000. The following increases or decreases in this Global Bond have been made:

Date of Exchange	Amount of decrease in Principal Amount of this Global Bond	Amount of increase in Principal Amount of this Global Bond	Principal Amount of this Global Bond following such decrease (or increase)	Signature of authorized officer of Trustee or Depository
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3.30% SENIOR NOTES DUE DECEMBER 1, 2027

THIS BOND IS A GLOBAL BOND WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY (AS DEFINED IN THE INDENTURE) OR A NOMINEE THEREOF. THIS GLOBAL BOND IS EXCHANGEABLE FOR BONDS REGISTERED IN THE NAME OF ANY PERSON OTHER THAN SUCH DEPOSITARY OR ITS NOMINEE ONLY IN LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE AND, UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR BONDS IN CERTIFICATED FORM, THIS GLOBAL BOND MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITARY TO A NOMINEE OF THE DEPOSITARY, OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANOTHER NOMINEE OF THE DEPOSITARY, OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY.

UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITARY TRUST COMPANY, A NEW YORK CORPORATION (“DTC”), TO THE COMPANY (AS DEFINED BELOW) OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY BOND ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

THIS BOND HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED PRIOR TO (I) THE DATE (THE “RESALE RESTRICTION TERMINATION DATE”) THAT IS 40 DAYS AFTER THE LAST DATE OF THE ORIGINAL ISSUANCE OF THE BONDS OR SUCH SHORTER PERIOD OF TIME AS PERMITTED BY REGULATIONS OR ANY SUCCESSOR PROVISION THERETO AND (II) A LATER DATE, IF ANY, AS MAY BE REQUIRED BY APPLICABLE LAW, OTHER THAN (A)(1) TO PACIFIC GAS AND ELECTRIC COMPANY (THE “COMPANY”) OR ONE OF ITS SUBSIDIARIES, (2) IN A TRANSACTION ENTITLED TO AN EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT, (3) SO LONG AS THIS BOND IS ELIGIBLE FOR RESALE PURSUANT TO RULE 144A UNDER THE SECURITIES ACT (“RULE 144A”), TO A PERSON WHOM THE SELLER REASONABLY BELIEVES IS A “QUALIFIED INSTITUTIONAL BUYER” WITHIN THE MEANING OF RULE 144A PURCHASING FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER TO WHOM NOTICE IS GIVEN THAT THE RESALE, PLEDGE OR OTHER TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A (AS INDICATED BY THE BOX

CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (4) IN AN OFFSHORE TRANSACTION IN ACCORDANCE WITH RULE 903 OR RULE 904 OF REGULATION S UNDER THE SECURITIES ACT (AS INDICATED BY THE BOX CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (5) IN ACCORDANCE WITH ANOTHER APPLICABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT (AND BASED UPON AN OPINION OF COUNSEL ACCEPTABLE TO THE COMPANY) OR (6) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT AND (B) IN EACH CASE IN ACCORDANCE WITH ANY APPLICABLE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES OR IN ANY OTHER APPLICABLE JURISDICTION. THE HOLDER HEREOF, BY PURCHASING THIS BOND, REPRESENTS AND AGREES FOR THE BENEFIT OF THE COMPANY THAT IT IS (1) A QUALIFIED INSTITUTIONAL BUYER WITHIN THE MEANING OF RULE 144A OR (2) A NON-US PERSON OUTSIDE THE UNITED STATES WITHIN THE MEANING OF, OR AN ACCOUNT SATISFYING THE REQUIREMENTS OF PARAGRAPH (K)(2) OF RULE 902 UNDER, REGULATION S UNDER THE SECURITIES ACT”.

BY ITS ACQUISITION HEREOF, THE HOLDER HEREOF REPRESENTS THAT IT IS NOT A U.S. PERSON NOR IS IT PURCHASING FOR THE ACCOUNT OF A U.S. PERSON AND IS ACQUIRING THIS BOND IN AN OFFSHORE TRANSACTION IN ACCORDANCE WITH REGULATION S UNDER THE SECURITIES ACT.

THE RIGHTS ATTACHING TO THIS TEMPORARY REGULATION S GLOBAL BOND, AND THE CONDITIONS AND PROCEDURES GOVERNING (I) THE EXCHANGE OF BENEFICIAL INTERESTS IN THIS TEMPORARY REGULATION S GLOBAL BOND FOR INTERESTS IN THE REGULATION S GLOBAL BOND OR RULE 144A GLOBAL BOND AND (II) THE TRANSFER OF INTERESTS IN THIS TEMPORARY REGULATION S GLOBAL BOND, ARE AS SPECIFIED IN THE INDENTURE REFERRED TO ON THE REVERSE HEREOF.

SOLELY FOR UNITED STATES FEDERAL INCOME TAX PURPOSES, THIS BOND WILL BE TREATED AS ISSUED WITH ORIGINAL ISSUE DISCOUNT (“OID”). UPON REQUEST, THE COMPANY WILL PROMPTLY MAKE AVAILABLE TO A HOLDER OF THIS BOND THE FOLLOWING INFORMATION: (1) THE ISSUE PRICE AND ISSUE DATE OF THIS BOND, (2) THE AMOUNT OF OID, (3) THE YIELD TO MATURITY OF THIS BOND, AND (4) ANY OTHER INFORMATION REQUIRED TO BE MADE AVAILABLE BY U.S. TREASURY REGULATIONS. HOLDERS SHOULD CONTACT THE CHIEF FINANCIAL OFFICER AT 77 BEALE STREET, SAN FRANCISCO, CA 94105.

THE FOLLOWING SUMMARY OF TERMS IS SUBJECT TO THE INFORMATION SET FORTH ON THE REVERSE HEREOF:

PRINCIPAL AMOUNT:
\$40,600,000

ISSUE DATE:
November 29, 2017

INTEREST RATE:
3.30% per annum

MATURITY DATE:
December 1, 2027

INTEREST PAYMENT DATES:
June 1 and December 1, commencing
June 1, 2018

THIS SENIOR NOTE IS A:
☒ Global Book-Entry Bond
☐ Certificated Bond

REGISTERED OWNER: Cede & Co.,
as nominee of The Depository Trust
Company

PACIFIC GAS AND ELECTRIC COMPANY

3.30% SENIOR NOTES DUE DECEMBER 1, 2027

(Fixed Rate)

No. S-1
CUSIP No: U69430 AE3

Principal Amount: \$40,600,000

PACIFIC GAS AND ELECTRIC COMPANY, a corporation duly organized and existing under the laws of the State of California (herein called the “Company,” which term includes any successor Person pursuant to the applicable provisions of the Indenture hereinafter referred to), for value received, hereby promises to pay to Cede & Co., as nominee for The Depository Trust Company, or registered assigns, the Principal Amount stated above on the Maturity Date stated above, and to pay interest thereon from and including the Issue Date stated above or, in the case of a 3.30% Senior Note due December 1, 2027 issued upon the registration of transfer or exchange, from and including the most recent Interest Payment Date to which interest has been paid or duly provided for, semi-annually in arrears on the Interest Payment Dates set forth above and on the Maturity Date stated above, commencing June 1, 2018 at the rate of 3.30% per annum until the principal hereof is paid or made available for payment; provided, however, that, upon the occurrence or failure to occur of certain events specified in the Registration Rights Agreement, the Company shall, subject to the terms and conditions set forth in the Registration Rights Agreement, pay additional interest on the principal amount of this Note after such event occurs or fails to occur so long as such event continues or fails to occur, as the case may be. Such additional interest shall be payable in addition to any other interest payable from time to time with respect to this Note. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this 3.30% Senior Note due December 1, 2027 (this “Senior Note,” and together with all other 3.30% Senior Notes due December 1, 2027, the “Senior Notes”) (or one or more Predecessor Bonds) is registered at the close of business on the Regular Record Date for such interest, which shall be the May 15 and November 15 preceding such Interest Payment Date; provided, however, that interest payable at the Maturity Date or on a Redemption Date will be paid to the Person to whom principal is payable. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such Regular Record Date and may either be paid to the Person in whose name this Senior Note (or one or more Predecessor Bonds) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Senior Notes not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of the Indenture and any securities exchange, if any, on which the Senior Notes may be listed, and upon such notice as may be required by any such exchange, all as more fully provided in said Indenture.

Payments of interest on this Senior Note will include interest accrued to but excluding the respective Interest Payment Dates. Interest payments for this Senior Note shall be computed and paid on the basis of the 360-day year of twelve 30-day months and will accrue from November 29, 2017 or from the most recent Interest Payment Date to which interest has been paid or duly provided for. In the event that any date on which interest is payable on this Senior Note (other than the Maturity Date) is not a Business Day then payment of the interest payable on such date will be made on the next succeeding day that is a Business Day (and without any interest or payment in respect of any such delay) with the same force and effect as if made on the date the payment was originally payable. If the Maturity Date falls on a day that is not a Business Day, the payment of principal, premium, if any, and interest may be made on the next succeeding Business Day, and no interest on such payment shall accrue for the period from and after maturity.

Payment of principal of, premium, if any, and interest on Senior Notes shall be made in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts. Payments of principal of, premium, if any, and interest on the Senior Notes represented by a Global Bond shall be made by wire transfer of immediately available funds to the Holder of such Global Bond, provided that, in the case of payments of principal and premium, if any, such Global Bond is first surrendered to the Paying Agent. If any of the Senior Notes are no longer represented by a Global Bond, (i)

payments of principal, premium, if any, and interest due on the Maturity Date or earlier redemption of such Senior Notes shall be made at the office of the Paying Agent upon surrender of such Senior Notes to the Paying Agent, and (ii) payments of interest shall be made, at the option of the Company, subject to such surrender where applicable, (A) by check mailed to the address of the Person entitled thereto as such address shall appear in the Bond Register or (B) by wire transfer to registered Holders of at least \$10,000,000 in principal amount of Senior Notes at such place and to such account at a banking institution in the United States as such Holders may designate in writing to the Trustee at least sixteen (16) days prior to the date for payment.

REFERENCE IS HEREBY MADE TO THE FURTHER PROVISIONS OF THIS SENIOR NOTE SET FORTH ON THE REVERSE HEREOF, WHICH FURTHER PROVISIONS SHALL FOR ALL PURPOSES HAVE THE SAME EFFECT AS IF SET FORTH AT THIS PLACE.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Senior Note shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____, 2017

PACIFIC GAS AND ELECTRIC COMPANY

By: David S. Thomason

Name: David S. Thomason

Title: Vice President, Chief Financial Officer and Controller

By: _____

Name: Nicholas M. Bijur

Title: Vice President and Treasurer


[Signature Page to the Reg. S Fixed Rate Global Note due 2027]

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____, 2017

PACIFIC GAS AND ELECTRIC COMPANY

By: _____
Name: David S. Thomason
Title: Vice President, Chief Financial Officer and Controller

By:  _____
Name: Nicholas M. Bijur
Title: Vice President and Treasurer

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

This Senior Note is one of the Bonds of the series designated as 2027 Notes referred to in the within-mentioned Indenture.

Dated: 11-29-2017

THE BANK OF NEW YORK MELLON TRUST
COMPANY, N.A., *As Trustee*

By: 
Authorized Signatory

Reverse of Senior Note

This 3.30% Senior Note due December 1, 2027 is one of a duly authorized issue of Bonds of the Company, issued and issuable in one or more series under the Indenture, dated as of November 29, 2017 (the “Indenture”), between the Company and The Bank of New York Mellon Trust Company, N.A., as Trustee (herein called the “Trustee,” which term includes any successor trustee under the Indenture), and reference is hereby made to the Indenture for a description of the respective rights, limitations of rights, duties and immunities of the Company, the Trustee and the Holders of Bonds thereunder and of the terms and conditions upon which Bonds are, and are to be, authenticated and delivered. This Senior Note is a Bond within the meaning of the Indenture and is designated as the 3.30% Senior Notes due December 1, 2027 established by the Company under the Indenture and initially issued in an aggregate principal amount of \$1,150,000,000 on November 29, 2017. The acceptance of this Senior Note shall be deemed to constitute the consent and agreement by the Holder hereof to all of the terms and provisions of the Indenture.

Subject to the terms and conditions of the Indenture, the Senior Notes are redeemable at the option of the Company (“Optional Redemption”), in whole or in part, (a) at any time prior to September 1, 2027 (the date that is three months prior to the Maturity Date) at a Redemption Price equal to the greater of:

(i) 100% of the principal amount of the Senior Notes to be redeemed; or

(ii) as determined by the Quotation Agent, the sum of the present values of the Remaining Scheduled Payments of principal and interest on the Senior Notes to be redeemed (not including any portion of payments of interest accrued as of the Redemption Date), calculated as if the Maturity Date of such Senior Notes was September 1, 2027 (the date that is three months prior to the Maturity Date), discounted to the Redemption Date on a semi-annual basis at the Adjusted Treasury Rate, plus 15 basis points,

plus, in either of the above cases, accrued and unpaid interest thereon to but not including the Redemption Date; and (b) at any time on or after September 1, 2027 (the date that is three months prior to the Maturity Date) at 100% of the principal amount of the Senior Notes to be redeemed, plus accrued and unpaid interest thereon to but not including the Redemption Date. For purposes of this Senior Note, “Comparable Treasury Issue” means the United States Treasury security selected by the applicable Quotation Agent as having a maturity comparable to the remaining term of this Senior Note, assuming, for such purpose, that this Senior Note matured on September 1, 2027 (the date that is three months prior to the Maturity Date)), that would be used, at the time of the selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of this Senior Note.

Interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to Holders of such Senior Notes, or one or more Predecessor Bonds, of record at the close of business on the relevant Record Dates referred to on the face hereof, all as provided in the Indenture.

In the case of an Optional Redemption, notice of redemption will be in writing and mailed first-class postage-prepaid not less than 10 days nor more than 60 days prior to the Redemption Date to each Holder of Senior Notes to be redeemed at the Holder’s registered address; provided, however, that such notice need not state the dollar amount of the Redemption Price if such dollar amount has not been determined as of the date such notice is being given to the Holders of the Senior Notes being redeemed. If money sufficient to pay the Redemption Price of all Senior Notes (or portions thereof) to be redeemed on the Redemption Date is deposited with the Paying Agent or the Trustee on or prior to the Redemption Date, from and after such Redemption Date such Senior Notes or portions thereof shall cease to bear interest. Senior Notes in denominations larger than \$2,000 in principal amount may be redeemed in part but only in integral multiples of \$1,000.

In the event of redemption of this Senior Note in part only, a new Senior Note or Senior Notes of like tenor for the unredeemed portion hereof will be issued in the name of the Holder hereof upon the surrender hereof.

As provided in the Indenture and subject to certain limitations therein set forth, this Senior Note or any portion of the principal amount hereof will be deemed to have been paid for all purposes of the Indenture and to be no longer Outstanding thereunder, and the Company's entire indebtedness in respect thereof will be satisfied and discharged, if there has been irrevocably deposited with the Trustee or any Paying Agent (other than the Company), in trust, money in an amount which will be sufficient and/or Eligible Obligations, the principal of and interest on which when due, without regard to any reinvestment thereof, will provide moneys which, together with money, if any, deposited with or held by the Trustee or such Paying Agent, will be sufficient to pay when due the principal of and premium, if any, and interest on this Senior Note when due.

If an Event of Default shall occur and be continuing, the Trustee or the Holders of not less than 33% in aggregate principal amount of the Outstanding Bonds, considered as one class, may declare the principal amount of all Bonds then Outstanding to be due and payable immediately by notice in writing to the Company (and to the Trustee if given by Holders); provided, however, that with respect to certain Events of Default relating to bankruptcy, insolvency and similar events, the principal amount of all Bonds then Outstanding shall be due and payable immediately without further action by the Trustee or the Holders.

The Indenture permits, with certain exceptions as therein provided, the Company and the Trustee to enter into one or more supplemental indentures for the purpose of adding any provisions to, or changing in any manner or eliminating any of the provisions of, the Indenture with the consent of the Holders of not less than a majority in aggregate principal amount of the Bonds at the time Outstanding, considered as one class; provided, however, that if there shall be Bonds of more than one series Outstanding under the Indenture and if a proposed supplemental indenture shall directly affect the rights of the Holders of Bonds of one or more, but less than all, of such series, then the consent only of the Holders of a majority in aggregate principal amount of the Outstanding Bonds of all series so directly affected, considered as one class, shall be required; and provided, further, that the Indenture permits the Company and the Trustee to enter into one or more supplemental indentures for certain purposes without the consent of any Holders of Bonds. The Indenture also contains provisions permitting the Holders of a majority in aggregate principal amount of Bonds, on behalf of the Holders of all such Bonds, to waive certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Senior Note shall be conclusive and binding upon such Holder and upon all future Holders of this Senior Note and of any Senior Note issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Senior Note.

As provided in and subject to the provisions of the Indenture, the Holder of this Senior Note shall not have the right to institute any proceeding with respect to the Indenture or for the appointment of a receiver or trustee or for any other remedy thereunder, unless such Holder shall have previously given the Trustee written notice of a continuing Event of Default, the Holders of at least 33% in aggregate principal amount of the Bonds at the time Outstanding shall have made written request to the Trustee to institute proceedings in respect of such Event of Default as Trustee and offered the Trustee reasonable indemnity, and the Trustee shall not have received from the Holders of at least a majority in aggregate principal amount of Bonds at the time Outstanding a direction inconsistent with such written request, and shall have failed to institute any such proceeding for 60 days after receipt of such notice, request and offer of indemnity. The foregoing shall not apply to any suit instituted by the Holder of this Senior Note for the enforcement of any payment of principal hereof or any premium or interest hereon on or after the respective due dates expressed herein.

No reference herein to the Indenture and no provision of this Senior Note or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and any premium and interest on this Senior Note at the times, place and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Senior Note is registrable in the Bond Register, upon surrender of this Senior Note for registration of transfer at the office or agency of the Company in any place where the principal of and any premium and interest on this Senior Note are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company, the Trustee or the Bond Registrar, as the case may be, duly executed by the Holder hereof or such Holder's attorney duly authorized in writing, and thereupon one or more new Senior Notes of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Senior Notes are issuable only in registered form without coupons in denominations of \$100,000 and any integral multiple of \$1,000 in excess thereof. As provided in the Indenture and subject to certain limitations therein set forth, Senior Notes are exchangeable for a like aggregate principal amount of Senior Notes and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

The Company shall not be required to execute or to provide for the registration of the transfer of or the exchange of (A) any Senior Note of this series during a period of 15 days immediately preceding the date notice is to be given identifying the serial numbers of the Senior Notes called for redemption, or (B) any Senior Note selected for redemption in whole or in part, except the unredeemed portion of any Senior Note being redeemed in part.

Prior to due presentment of this Senior Note for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Senior Note is registered as the owner hereof for all purposes, whether or not this Senior Note is overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

This Senior Note shall be governed by, and construed and enforced in accordance with, the laws of the State of New York without regard to the principles of conflicts of laws thereunder, except to the extent that the Trust Indenture Act shall be applicable.

As provided in the Indenture, no recourse shall be had for the payment of the principal of, premium, if any, or interest with respect to this Senior Note, or any part thereof, or for any claim based hereon or otherwise in respect hereof, or of the indebtedness represented hereby, or upon any obligation, covenant or agreement under the Indenture or the Registration Rights Agreement, against any incorporator, shareholder, officer or director, as such, past, present or future, of the Company or of any predecessor or successor corporation (either directly or through the Company or a predecessor or successor corporation), whether by virtue of any constitutional provision, statute or rule of law or by the enforcement of any assessment or penalty or otherwise; it being expressly agreed and understood that the Indenture and all the Bonds are solely corporate obligations and that any such personal liability is hereby expressly waived and released as a condition of, and as part of the consideration for, the execution of the Indenture and the issuance of this Senior Note.

All terms used in this Senior Note which are not defined herein shall have the meanings assigned to them in the Indenture.

ASSIGNMENT FORM

To assign this Security, fill in the form below:

I or we assign and transfer this Security to

(Print or type assignee's name, address and zip code)

(Insert assignee's soc. sec. or tax I.D. No.)

and irrevocably appoint _____ agent to transfer this Security on the books of the Company. The agent may substitute another to act for him.

Date: _____ Your signature: _____

Sign exactly as your name appears on the other side of this Security.

Signature Guarantee:

(Signature must be guaranteed)

Signatures must be guaranteed by an "eligible guarantor institution" meeting the requirements of the Registrar, which requirements include membership or participation in the Security Transfer Agent Medallion Program ("STAMP") or such other "signature guarantee program" as may be determined by the Registrar in addition to, or in substitution for, STAMP, all in accordance with the Securities Exchange Act of 1934, as amended.

In connection with any transfer of any of the Securities evidenced by this certificate occurring prior to one year (or such shorter period of time as permitted by Rule 144 under the Securities Act or any successor provision thereto) after the later of the Issue Date hereof and the last date, if any, on which such Securities were owned by the Company or any Affiliate of the Company (or, in the case of Regulation S Securities, prior to the expiration of the Restricted Period), the undersigned confirms that such Securities are being transferred in accordance with their terms:

CHECK ONE BOX BELOW

- (1) ☐ to the Company or any Subsidiary thereof; or
- (2) ☐ pursuant to a registration statement which has become effective under the Securities Act of 1933, as amended (the "Securities Act"); or
- (3) ☐ for so long as the Securities are eligible for resale pursuant to Rule 144A, to a person who the undersigned reasonably believes is a "qualified institutional buyer" (as defined in Rule 144A under the Securities Act) that is purchasing for its own account or for the account of a qualified institutional buyer to whom notice is given that such transfer is being made in reliance on Rule 144A, in each case pursuant to and in compliance with Rule 144A under the Securities Act; or
- (4) ☐ pursuant to offers and sales that occur outside the United States within the meaning of Regulation S under the Securities Act in compliance with Rule 904 under the Securities Act; or
- (5) ☐ pursuant to another exemption from registration under the Securities Act.

Unless one of the boxes is checked, the Trustee will refuse to register any of the Securities evidenced by this certificate in the name of any person other than the registered holder thereof; provided, however, that if box (5) is checked, the Company and the Trustee shall be entitled to require, prior to registering any such transfer of the Securities, such legal opinions, certifications or other evidence as may reasonably be required in order to determine that the proposed transfer is being made in compliance with the Securities Act and applicable state securities laws.

Signature

SCHEDULE OF EXCHANGES OF INTERESTS IN THE GLOBAL BOND

The initial principal amount of this Global Bond is \$40,600,000. The following increases or decreases in this Global Bond have been made:

Date of Exchange	Amount of decrease in Principal Amount of this Global Bond	Amount of increase in Principal Amount of this Global Bond	Principal Amount of this Global Bond following such decrease (or increase)	Signature of authorized officer of Trustee or Depository
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3.95% SENIOR NOTES DUE DECEMBER 1, 2047

THIS BOND IS A GLOBAL BOND WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY (AS DEFINED IN THE INDENTURE) OR A NOMINEE THEREOF. THIS GLOBAL BOND IS EXCHANGEABLE FOR BONDS REGISTERED IN THE NAME OF ANY PERSON OTHER THAN SUCH DEPOSITARY OR ITS NOMINEE ONLY IN LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE AND, UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR BONDS IN CERTIFICATED FORM, THIS GLOBAL BOND MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITARY TO A NOMINEE OF THE DEPOSITARY, OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANOTHER NOMINEE OF THE DEPOSITARY, OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY.

UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITARY TRUST COMPANY, A NEW YORK CORPORATION (“DTC”), TO THE COMPANY (AS DEFINED BELOW) OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY BOND ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

THIS BOND HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED PRIOR TO (I) THE DATE (THE “RESALE RESTRICTION TERMINATION DATE”) THAT IS ONE YEAR AFTER THE LAST ORIGINAL ISSUE DATE HEREOF OR SUCH SHORTER PERIOD OF TIME AS PERMITTED BY RULE 144 UNDER THE SECURITIES ACT OR ANY SUCCESSOR PROVISION THERETO AND (II) A LATER DATE, IF ANY, AS MAY BE REQUIRED BY APPLICABLE LAW, OTHER THAN (A)(1) TO PACIFIC GAS AND ELECTRIC COMPANY (THE “COMPANY”) OR ONE OF ITS SUBSIDIARIES, (2) IN A TRANSACTION ENTITLED TO AN EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT, (3) SO LONG AS THIS BOND IS ELIGIBLE FOR RESALE PURSUANT TO RULE 144A UNDER THE SECURITIES ACT (“RULE 144A”), TO A PERSON WHOM THE SELLER REASONABLY BELIEVES IS A “QUALIFIED INSTITUTIONAL BUYER” WITHIN THE MEANING OF RULE 144A PURCHASING FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER TO WHOM NOTICE IS GIVEN THAT THE RESALE, PLEDGE OR OTHER TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A (AS INDICATED BY THE BOX CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (4) IN AN OFFSHORE TRANSACTION IN ACCORDANCE WITH RULE 903 OR RULE 904 OF REGULATION S UNDER THE SECURITIES ACT (AS INDICATED BY THE

BOX CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (5) IN ACCORDANCE WITH ANOTHER APPLICABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT (AND BASED UPON AN OPINION OF COUNSEL ACCEPTABLE TO THE COMPANY) OR (6) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT AND (B) IN EACH CASE IN ACCORDANCE WITH ANY APPLICABLE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES OR IN ANY OTHER APPLICABLE JURISDICTION. THE HOLDER HEREOF, BY PURCHASING THIS BOND, REPRESENTS AND AGREES FOR THE BENEFIT OF THE COMPANY THAT IT IS (1) A QUALIFIED INSTITUTIONAL BUYER WITHIN THE MEANING OF RULE 144A OR (2) A NON-US PERSON OUTSIDE THE UNITED STATES WITHIN THE MEANING OF, OR AN ACCOUNT SATISFYING THE REQUIREMENTS OF PARAGRAPH (K)(2) OF RULE 902 UNDER, REGULATION S UNDER THE SECURITIES ACT”.

SOLELY FOR UNITED STATES FEDERAL INCOME TAX PURPOSES, THIS BOND WILL BE TREATED AS ISSUED WITH ORIGINAL ISSUE DISCOUNT (“OID”). UPON REQUEST, THE COMPANY WILL PROMPTLY MAKE AVAILABLE TO A HOLDER OF THIS BOND THE FOLLOWING INFORMATION: (1) THE ISSUE PRICE AND ISSUE DATE OF THIS BOND, (2) THE AMOUNT OF OID, (3) THE YIELD TO MATURITY OF THIS BOND, AND (4) ANY OTHER INFORMATION REQUIRED TO BE MADE AVAILABLE BY U.S. TREASURY REGULATIONS. HOLDERS SHOULD CONTACT THE CHIEF FINANCIAL OFFICER AT 77 BEALE STREET, SAN FRANCISCO, CA 94105.

THE FOLLOWING SUMMARY OF TERMS IS SUBJECT TO THE INFORMATION SET FORTH ON THE REVERSE HEREOF:

PRINCIPAL AMOUNT:
\$500,000,000

ISSUE DATE:
November 29, 2017

INTEREST RATE:
3.95% per annum

MATURITY DATE:
December 1, 2047

INTEREST PAYMENT DATES:
June 1 and December 1, commencing
June 1, 2018

THIS SENIOR NOTE IS A:
☒ Global Book-Entry Bond
☐ Certificated Bond

REGISTERED OWNER: Cede & Co., as
nominee of The Depository Trust
Company

PACIFIC GAS AND ELECTRIC COMPANY

3.95% SENIOR NOTES DUE DECEMBER 1, 2047

(Fixed Rate)

No. A-1
CUSIP No: 694308 HX8

Principal Amount: \$500,000,000

PACIFIC GAS AND ELECTRIC COMPANY, a corporation duly organized and existing under the laws of the State of California (herein called the "Company," which term includes any successor Person pursuant to the applicable provisions of the Indenture hereinafter referred to), for value received, hereby promises to pay to Cede & Co., as nominee for The Depository Trust Company, or registered assigns, the Principal Amount stated above on the Maturity Date stated above, and to pay interest thereon from and including the Issue Date stated above or, in the case of a 3.95% Senior Note due December 1, 2047 issued upon the registration of transfer or exchange, from and including the most recent Interest Payment Date to which interest has been paid or duly provided for, semi-annually in arrears on the Interest Payment Dates set forth above and on the Maturity Date stated above, commencing June 1, 2018 at the rate of 3.95% per annum until the principal hereof is paid or made available for payment; provided, however, that, upon the occurrence or failure to occur of certain events specified in the Registration Rights Agreement, the Company shall, subject to the terms and conditions set forth in the Registration Rights Agreement, pay additional interest on the principal amount of this Note after such event occurs or fails to occur so long as such event continues or fails to occur, as the case may be. Such additional interest shall be payable in addition to any other interest payable from time to time with respect to this Note. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this 3.95% Senior Note due December 1, 2047 (this "Senior Note," and together with all other 3.95% Senior Notes due December 1, 2047, the "Senior Notes") (or one or more Predecessor Bonds) is registered at the close of business on the Regular Record Date for such interest, which shall be the May 15 and November 15 preceding such Interest Payment Date; provided, however, that interest payable at the Maturity Date or on a Redemption Date will be paid to the Person to whom principal is payable. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such Regular Record Date and may either be paid to the Person in whose name this Senior Note (or one or more Predecessor Bonds) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Senior Notes not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of the Indenture and any securities exchange, if any, on which the Senior Notes may be listed, and upon such notice as may be required by any such exchange, all as more fully provided in said Indenture.

Payments of interest on this Senior Note will include interest accrued to but excluding the respective Interest Payment Dates. Interest payments for this Senior Note shall be computed and paid on the basis of the 360-day year of twelve 30-day months and will accrue from November 29, 2017 or from the most recent Interest Payment Date to which interest has been paid or duly provided for. In the event that any date on which interest is payable on this Senior Note (other than the Maturity Date) is not a Business Day then payment of the interest payable on such date will be made on the next succeeding day that is a Business Day (and without any interest or payment in respect of any such delay) with the same force and effect as if made on the date the payment was originally payable. If the Maturity Date falls on a day that is not a Business Day, the payment of principal, premium, if any, and interest may be made on the next succeeding Business Day, and no interest on such payment shall accrue for the period from and after maturity.

Payment of principal of, premium, if any, and interest on Senior Notes shall be made in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts. Payments of principal of, premium, if any, and interest on the Senior Notes represented by a Global Bond shall be made by wire transfer of immediately available funds to the Holder of such Global Bond, provided that, in the case of payments of principal and premium, if any, such Global Bond is first surrendered to the Paying Agent. If any of the Senior Notes are no longer represented by a Global Bond, (i) payments of principal, premium, if any, and interest due on the Maturity Date or earlier redemption of such Senior Notes shall be made at the office of the Paying Agent upon surrender of such Senior Notes to the Paying Agent, and (ii) payments of interest shall be made, at the option of the Company, subject to such surrender where applicable, (A) by check mailed to the address of the Person entitled thereto as such address shall appear in the Bond Register or (B) by wire transfer to registered Holders of at least \$10,000,000

in principal amount of Senior Notes at such place and to such account at a banking institution in the United States as such Holders may designate in writing to the Trustee at least sixteen (16) days prior to the date for payment.

REFERENCE IS HEREBY MADE TO THE FURTHER PROVISIONS OF THIS SENIOR NOTE SET FORTH ON THE REVERSE HEREOF, WHICH FURTHER PROVISIONS SHALL FOR ALL PURPOSES HAVE THE SAME EFFECT AS IF SET FORTH AT THIS PLACE.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Senior Note shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____, 2017

PACIFIC GAS AND ELECTRIC COMPANY

By: David S. Thomason

Name: David S. Thomason

Title: Vice President, Chief Financial Officer and Controller

By: _____

Name: Nicholas M. Bijur

Title: Vice President and Treasurer

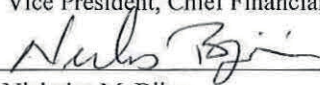
[Signature Page to the 144A Fixed Rate Global Note due 2027]

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____, 2017

PACIFIC GAS AND ELECTRIC COMPANY

By: _____
Name: David S. Thomason
Title: Vice President, Chief Financial Officer and Controller

By:  _____
Name: Nicholas M. Bijur
Title: Vice President and Treasurer

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

This Senior Note is one of the Bonds of the series designated 2047 Notes referred to in the within-mentioned Indenture.

Dated: 11-29-2017

THE BANK OF NEW YORK MELLON TRUST
COMPANY, N.A., *As Trustee*

By: 
Authorized Signatory

Reverse of Senior Note

This 3.95% Senior Note due December 1, 2047 is one of a duly authorized issue of Bonds of the Company, issued and issuable in one or more series under the Indenture, dated as of November 29, 2017 (the “Indenture”), between the Company and The Bank of New York Mellon Trust Company, N.A., as Trustee (herein called the “Trustee,” which term includes any successor trustee under the Indenture), and reference is hereby made to the Indenture for a description of the respective rights, limitations of rights, duties and immunities of the Company, the Trustee and the Holders of Bonds thereunder and of the terms and conditions upon which Bonds are, and are to be, authenticated and delivered. This Senior Note is a Bond within the meaning of the Indenture and is designated as the 3.95% Senior Notes due December 1, 2047 established by the Company under the Indenture and initially issued in an aggregate principal amount of \$850,000 on November 29, 2017. The acceptance of this Senior Note shall be deemed to constitute the consent and agreement by the Holder hereof to all of the terms and provisions of the Indenture.

Subject to the terms and conditions of the Indenture, the Senior Notes are redeemable at the option of the Company (“Optional Redemption”), in whole or in part, (a) at any time prior to June 1, 2047 (the date that is six months prior to the Maturity Date) at a Redemption Price equal to the greater of:

(i) 100% of the principal amount of the Senior Notes to be redeemed; or

(ii) as determined by the Quotation Agent, the sum of the present values of the Remaining Scheduled Payments of principal and interest on the Senior Notes to be redeemed (not including any portion of payments of interest accrued as of the Redemption Date), calculated as if the Maturity Date of such Senior Notes was June 1, 2047 (the date that is six months prior to the Maturity Date), discounted to the Redemption Date on a semi-annual basis at the Adjusted Treasury Rate, plus 20 basis points,

plus, in either of the above cases, accrued and unpaid interest thereon to but not including the Redemption Date; and (b) at any time on or after June 1, 2047 (the date that is six months prior to the Maturity Date) at 100% of the principal amount of the Senior Notes to be redeemed, plus accrued and unpaid interest thereon to but not including the Redemption Date. For purposes of this Senior Note, “Comparable Treasury Issue” means the United States Treasury security selected by the applicable Quotation Agent as having a maturity comparable to the remaining term of this Senior Note, assuming, for such purpose, that this Senior Note matured on June 1, 2047 (the date that is six months prior to the Maturity Date)), that would be used, at the time of the selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of this Senior Note.

Interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to Holders of such Senior Notes, or one or more Predecessor Bonds, of record at the close of business on the relevant Record Dates referred to on the face hereof, all as provided in the Indenture.

In the case of an Optional Redemption, notice of redemption will be in writing and mailed first-class postage-prepaid not less than 10 days nor more than 60 days prior to the Redemption Date to each Holder of Senior Notes to be redeemed at the Holder’s registered address; provided, however, that such notice need not state the dollar amount of the Redemption Price if such dollar amount has not been determined as of the date such notice is being given to the Holders of the Senior Notes being redeemed. If money sufficient to pay the Redemption Price of all Senior Notes (or portions thereof) to be redeemed on the Redemption Date is deposited with the Paying Agent or the Trustee on or prior to the Redemption Date, from and after such Redemption Date such Senior Notes or portions thereof shall cease to bear interest. Senior Notes in denominations larger than \$2,000 in principal amount may be redeemed in part but only in integral multiples of \$1,000.

In the event of redemption of this Senior Note in part only, a new Senior Note or Senior Notes of like tenor for the unredeemed portion hereof will be issued in the name of the Holder hereof upon the surrender hereof.

As provided in the Indenture and subject to certain limitations therein set forth, this Senior Note or any portion of the principal amount hereof will be deemed to have been paid for all purposes of the Indenture and to be no longer Outstanding thereunder, and the Company's entire indebtedness in respect thereof will be satisfied and discharged, if there has been irrevocably deposited with the Trustee or any Paying Agent (other than the Company), in trust, money in an amount which will be sufficient and/or Eligible Obligations, the principal of and interest on which when due, without regard to any reinvestment thereof, will provide moneys which, together with money, if any, deposited with or held by the Trustee or such Paying Agent, will be sufficient to pay when due the principal of and premium, if any, and interest on this Senior Note when due.

If an Event of Default shall occur and be continuing, the Trustee or the Holders of not less than 33% in aggregate principal amount of the Outstanding Bonds, considered as one class, may declare the principal amount of all Bonds then Outstanding to be due and payable immediately by notice in writing to the Company (and to the Trustee if given by Holders); provided, however, that with respect to certain Events of Default relating to bankruptcy, insolvency and similar events, the principal amount of all Bonds then Outstanding shall be due and payable immediately without further action by the Trustee or the Holders.

The Indenture permits, with certain exceptions as therein provided, the Company and the Trustee to enter into one or more supplemental indentures for the purpose of adding any provisions to, or changing in any manner or eliminating any of the provisions of, the Indenture with the consent of the Holders of not less than a majority in aggregate principal amount of the Bonds at the time Outstanding, considered as one class; provided, however, that if there shall be Bonds of more than one series Outstanding under the Indenture and if a proposed supplemental indenture shall directly affect the rights of the Holders of Bonds of one or more, but less than all, of such series, then the consent only of the Holders of a majority in aggregate principal amount of the Outstanding Bonds of all series so directly affected, considered as one class, shall be required; and provided, further, that the Indenture permits the Company and the Trustee to enter into one or more supplemental indentures for certain purposes without the consent of any Holders of Bonds. The Indenture also contains provisions permitting the Holders of a majority in aggregate principal amount of Bonds, on behalf of the Holders of all such Bonds, to waive certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Senior Note shall be conclusive and binding upon such Holder and upon all future Holders of this Senior Note and of any Senior Note issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Senior Note.

As provided in and subject to the provisions of the Indenture, the Holder of this Senior Note shall not have the right to institute any proceeding with respect to the Indenture or for the appointment of a receiver or trustee or for any other remedy thereunder, unless such Holder shall have previously given the Trustee written notice of a continuing Event of Default, the Holders of at least 33% in aggregate principal amount of the Bonds at the time Outstanding shall have made written request to the Trustee to institute proceedings in respect of such Event of Default as Trustee and offered the Trustee reasonable indemnity, and the Trustee shall not have received from the Holders of at least a majority in aggregate principal amount of Bonds at the time Outstanding a direction inconsistent with such written request, and shall have failed to institute any such proceeding for 60 days after receipt of such notice, request and offer of indemnity. The foregoing shall not apply to any suit instituted by the Holder of this Senior Note for the enforcement of any payment of principal hereof or any premium or interest hereon on or after the respective due dates expressed herein.

No reference herein to the Indenture and no provision of this Senior Note or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and any premium and interest on this Senior Note at the times, place and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Senior Note is registrable in the Bond Register, upon surrender of this Senior Note for registration of transfer at the office or agency of the Company in any place where the principal of and any premium and interest on this Senior Note are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company, the Trustee or the Bond Registrar, as the case may be, duly executed by the Holder hereof or such Holder's attorney duly authorized in writing, and thereupon one or more new Senior Notes of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Senior Notes are issuable only in registered form without coupons in denominations of \$100,000 and any integral multiple of \$1,000 in excess thereof. As provided in the Indenture and subject to certain limitations therein set forth, Senior Notes are exchangeable for a like aggregate principal amount of Senior Notes and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

The Company shall not be required to execute or to provide for the registration of the transfer of or the exchange of (A) any Senior Note of this series during a period of 15 days immediately preceding the date notice is to be given identifying the serial numbers of the Senior Notes called for redemption, or (B) any Senior Note selected for redemption in whole or in part, except the unredeemed portion of any Senior Note being redeemed in part.

Prior to due presentment of this Senior Note for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Senior Note is registered as the owner hereof for all purposes, whether or not this Senior Note is overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

This Senior Note shall be governed by, and construed and enforced in accordance with, the laws of the State of New York without regard to the principles of conflicts of laws thereunder, except to the extent that the Trust Indenture Act shall be applicable.

As provided in the Indenture, no recourse shall be had for the payment of the principal of, premium, if any, or interest with respect to this Senior Note, or any part thereof, or for any claim based hereon or otherwise in respect hereof, or of the indebtedness represented hereby, or upon any obligation, covenant or agreement under the Indenture or the Registration Rights Agreement, against any incorporator, shareholder, officer or director, as such, past, present or future, of the Company or of any predecessor or successor corporation (either directly or through the Company or a predecessor or successor corporation), whether by virtue of any constitutional provision, statute or rule of law or by the enforcement of any assessment or penalty or otherwise; it being expressly agreed and understood that the Indenture and all the Bonds are solely corporate obligations and that any such personal liability is hereby expressly waived and released as a condition of, and as part of the consideration for, the execution of the Indenture and the issuance of this Senior Note.

All terms used in this Senior Note which are not defined herein shall have the meanings assigned to them in the Indenture.

ASSIGNMENT FORM

To assign this Security, fill in the form below:

I or we assign and transfer this Security to

(Print or type assignee's name, address and zip code)

(Insert assignee's soc. sec. or tax I.D. No.)

and irrevocably appoint _____ agent to transfer this Security on the books of the Company. The agent may substitute another to act for him.

Date: _____

Your signature: _____

Sign exactly as your name appears on the other side of this Security.

Signature Guarantee:

(Signature must be guaranteed)

Signatures must be guaranteed by an "eligible guarantor institution" meeting the requirements of the Registrar, which requirements include membership or participation in the Security Transfer Agent Medallion Program ("STAMP") or such other "signature guarantee program" as may be determined by the Registrar in addition to, or in substitution for, STAMP, all in accordance with the Securities Exchange Act of 1934, as amended.

In connection with any transfer of any of the Securities evidenced by this certificate occurring prior to one year (or such shorter period of time as permitted by Rule 144 under the Securities Act or any successor provision thereto) after the later of the Issue Date hereof and the last date, if any, on which such Securities were owned by the Company or any Affiliate of the Company (or, in the case of Regulation S Securities, prior to the expiration of the Restricted Period), the undersigned confirms that such Securities are being transferred in accordance with their terms:

CHECK ONE BOX BELOW

- (1) ☐ to the Company or any Subsidiary thereof; or
- (2) ☐ pursuant to a registration statement which has become effective under the Securities Act of 1933, as amended (the "Securities Act"); or
- (3) ☐ for so long as the Securities are eligible for resale pursuant to Rule 144A, to a person who the undersigned reasonably believes is a "qualified institutional buyer" (as defined in Rule 144A under the Securities Act) that is purchasing for its own account or for the account of a qualified institutional buyer to whom notice is given that such transfer is being made in reliance on Rule 144A, in each case pursuant to and in compliance with Rule 144A under the Securities Act; or
- (4) ☐ pursuant to offers and sales that occur outside the United States within the meaning of Regulation S under the Securities Act in compliance with Rule 904 under the Securities Act; or
- (5) ☐ pursuant to another exemption from registration under the Securities Act.

Unless one of the boxes is checked, the Trustee will refuse to register any of the Securities evidenced by this certificate in the name of any person other than the registered holder thereof; provided, however, that if box (5) is checked, the Company and the Trustee shall be entitled to require, prior to registering any such transfer of the Securities, such legal opinions, certifications or other evidence as may reasonably be required in order to determine that the proposed transfer is being made in compliance with the Securities Act and applicable state securities laws.

Signature

SCHEDULE OF EXCHANGES OF INTERESTS IN THE GLOBAL BOND

The initial principal amount of this Global Bond is \$500,000,000. The following increases or decreases in this Global Bond have been made:

Date of Exchange	Amount of decrease in Principal Amount of this Global Bond	Amount of increase in Principal Amount of this Global Bond	Principal Amount of this Global Bond following such decrease (or increase)	Signature of authorized officer of Trustee or Depository
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3.95% SENIOR NOTES DUE DECEMBER 1, 2047

THIS BOND IS A GLOBAL BOND WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY (AS DEFINED IN THE INDENTURE) OR A NOMINEE THEREOF. THIS GLOBAL BOND IS EXCHANGEABLE FOR BONDS REGISTERED IN THE NAME OF ANY PERSON OTHER THAN SUCH DEPOSITARY OR ITS NOMINEE ONLY IN LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE AND, UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR BONDS IN CERTIFICATED FORM, THIS GLOBAL BOND MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITARY TO A NOMINEE OF THE DEPOSITARY, OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANOTHER NOMINEE OF THE DEPOSITARY, OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY.

UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITARY TRUST COMPANY, A NEW YORK CORPORATION (“DTC”), TO THE COMPANY (AS DEFINED BELOW) OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY BOND ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

THIS BOND HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED PRIOR TO (I) THE DATE (THE “RESALE RESTRICTION TERMINATION DATE”) THAT IS 40 DAYS AFTER THE LAST DATE OF THE ORIGINAL ISSUANCE OF THE BONDS OR SUCH SHORTER PERIOD OF TIME AS PERMITTED BY REGULATIONS OR ANY SUCCESSOR PROVISION THERETO AND (II) A LATER DATE, IF ANY, AS MAY BE REQUIRED BY APPLICABLE LAW, OTHER THAN (A)(1) TO PACIFIC GAS AND ELECTRIC COMPANY (THE “COMPANY”) OR ONE OF ITS SUBSIDIARIES, (2) IN A TRANSACTION ENTITLED TO AN EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT, (3) SO LONG AS THIS BOND IS ELIGIBLE FOR RESALE PURSUANT TO RULE 144A UNDER THE SECURITIES ACT (“RULE 144A”), TO A PERSON WHOM THE SELLER REASONABLY BELIEVES IS A “QUALIFIED INSTITUTIONAL BUYER” WITHIN THE MEANING OF RULE 144A PURCHASING FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER TO WHOM NOTICE IS GIVEN THAT THE RESALE, PLEDGE OR OTHER TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A (AS INDICATED BY THE BOX CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (4) IN AN OFFSHORE TRANSACTION IN ACCORDANCE WITH RULE 903 OR RULE 904 OF REGULATIONS UNDER THE SECURITIES ACT (AS INDICATED BY THE BOX CHECKED BY THE

TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (5) IN ACCORDANCE WITH ANOTHER APPLICABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT (AND BASED UPON AN OPINION OF COUNSEL ACCEPTABLE TO THE COMPANY) OR (6) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT AND (B) IN EACH CASE IN ACCORDANCE WITH ANY APPLICABLE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES OR IN ANY OTHER APPLICABLE JURISDICTION. THE HOLDER HEREOF, BY PURCHASING THIS BOND, REPRESENTS AND AGREES FOR THE BENEFIT OF THE COMPANY THAT IT IS (1) A QUALIFIED INSTITUTIONAL BUYER WITHIN THE MEANING OF RULE 144A OR (2) A NON-US PERSON OUTSIDE THE UNITED STATES WITHIN THE MEANING OF, OR AN ACCOUNT SATISFYING THE REQUIREMENTS OF PARAGRAPH (K)(2) OF RULE 902 UNDER, REGULATION S UNDER THE SECURITIES ACT”.

BY ITS ACQUISITION HEREOF, THE HOLDER HEREOF REPRESENTS THAT IT IS NOT A U.S. PERSON NOR IS IT PURCHASING FOR THE ACCOUNT OF A U.S. PERSON AND IS ACQUIRING THIS BOND IN AN OFFSHORE TRANSACTION IN ACCORDANCE WITH REGULATION S UNDER THE SECURITIES ACT.

THE RIGHTS ATTACHING TO THIS TEMPORARY REGULATION S GLOBAL BOND, AND THE CONDITIONS AND PROCEDURES GOVERNING (I) THE EXCHANGE OF BENEFICIAL INTERESTS IN THIS TEMPORARY REGULATION S GLOBAL BOND FOR INTERESTS IN THE REGULATION S GLOBAL BOND OR RULE 144A GLOBAL BOND AND (II) THE TRANSFER OF INTERESTS IN THIS TEMPORARY REGULATION S GLOBAL BOND, ARE AS SPECIFIED IN THE INDENTURE REFERRED TO ON THE REVERSE HEREOF.

SOLELY FOR UNITED STATES FEDERAL INCOME TAX PURPOSES, THIS BOND WILL BE TREATED AS ISSUED WITH ORIGINAL ISSUE DISCOUNT (“OID”). UPON REQUEST, THE COMPANY WILL PROMPTLY MAKE AVAILABLE TO A HOLDER OF THIS BOND THE FOLLOWING INFORMATION: (1) THE ISSUE PRICE AND ISSUE DATE OF THIS BOND, (2) THE AMOUNT OF OID, (3) THE YIELD TO MATURITY OF THIS BOND, AND (4) ANY OTHER INFORMATION REQUIRED TO BE MADE AVAILABLE BY U.S. TREASURY REGULATIONS. HOLDERS SHOULD CONTACT THE CHIEF FINANCIAL OFFICER AT 77 BEALE STREET, SAN FRANCISCO, CA 94105.

THE FOLLOWING SUMMARY OF TERMS IS SUBJECT TO THE INFORMATION SET FORTH ON THE REVERSE HEREOF:

PRINCIPAL AMOUNT:
\$18,225,000

ISSUE DATE:
November 29, 2017

INTEREST RATE:
3.95% per annum

MATURITY DATE:
December 1, 2047

INTEREST PAYMENT DATES:
June 1 and December 1, commencing
June 1, 2018

THIS SENIOR NOTE IS A:
☒ Global Book-Entry Bond
☐ Certificated Bond

REGISTERED OWNER: Cede & Co., as
nominee of The Depository Trust
Company

PACIFIC GAS AND ELECTRIC COMPANY

3.95% SENIOR NOTES DUE DECEMBER 1, 2047

(Fixed Rate)

No. S-1
CUSIP No: U69430 AF0

Principal Amount: \$18,225,000

PACIFIC GAS AND ELECTRIC COMPANY, a corporation duly organized and existing under the laws of the State of California (herein called the "Company," which term includes any successor Person pursuant to the applicable provisions of the Indenture hereinafter referred to), for value received, hereby promises to pay to Cede & Co., as nominee for The Depository Trust Company, or registered assigns, the Principal Amount stated above on the Maturity Date stated above, and to pay interest thereon from and including the Issue Date stated above or, in the case of a 3.95% Senior Note due December 1, 2047 issued upon the registration of transfer or exchange, from and including the most recent Interest Payment Date to which interest has been paid or duly provided for, semi-annually in arrears on the Interest Payment Dates set forth above and on the Maturity Date stated above, commencing June 1, 2018 at the rate of 3.95% per annum until the principal hereof is paid or made available for payment; provided, however, that, upon the occurrence or failure to occur of certain events specified in the Registration Rights Agreement, the Company shall, subject to the terms and conditions set forth in the Registration Rights Agreement, pay additional interest on the principal amount of this Note after such event occurs or fails to occur so long as such event continues or fails to occur, as the case may be. Such additional interest shall be payable in addition to any other interest payable from time to time with respect to this Note. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this 3.95% Senior Note due December 1, 2047 (this "Senior Note," and together with all other 3.95% Senior Notes due December 1, 2047, the "Senior Notes") (or one or more Predecessor Bonds) is registered at the close of business on the Regular Record Date for such interest, which shall be the May 15 and November 15 preceding such Interest Payment Date; provided, however, that interest payable at the Maturity Date or on a Redemption Date will be paid to the Person to whom principal is payable. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such Regular Record Date and may either be paid to the Person in whose name this Senior Note (or one or more Predecessor Bonds) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Senior Notes not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of the Indenture and any securities exchange, if any, on which the Senior Notes may be listed, and upon such notice as may be required by any such exchange, all as more fully provided in said Indenture.

Payments of interest on this Senior Note will include interest accrued to but excluding the respective Interest Payment Dates. Interest payments for this Senior Note shall be computed and paid on the basis of the 360-day year of twelve 30-day months and will accrue from November 29, 2017 or from the most recent Interest Payment Date to which interest has been paid or duly provided for. In the event that any date on which interest is payable on this Senior Note (other than the Maturity Date) is not a Business Day then payment of the interest payable on such date will be made on the next succeeding day that is a Business Day (and without any interest or payment in respect of any such delay) with the same force and effect as if made on the date the payment was originally payable. If the Maturity Date falls on a day that is not a Business Day, the payment of principal, premium, if any, and interest may be made on the next succeeding Business Day, and no interest on such payment shall accrue for the period from and after maturity.

Payment of principal of, premium, if any, and interest on Senior Notes shall be made in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts. Payments of principal of, premium, if any, and interest on the Senior Notes represented by a Global Bond shall be made by wire transfer of immediately available funds to the Holder of such Global Bond, provided that, in the case of payments of principal and premium, if any, such Global Bond is first surrendered to the Paying Agent. If any of the Senior Notes are no longer represented by a Global Bond, (i) payments of principal, premium, if any, and interest due on the Maturity Date or earlier redemption of such Senior Notes shall be made at the office of the Paying Agent upon surrender of such Senior Notes to the Paying Agent, and (ii) payments of interest shall be made, at the option of the Company, subject to such surrender where applicable, (A) by check mailed to the address of the Person entitled thereto as such address shall appear in the Bond Register or (B) by wire transfer to registered Holders of at least \$10,000,000

in principal amount of Senior Notes at such place and to such account at a banking institution in the United States as such Holders may designate in writing to the Trustee at least sixteen (16) days prior to the date for payment.

REFERENCE IS HEREBY MADE TO THE FURTHER PROVISIONS OF THIS SENIOR NOTE SET FORTH ON THE REVERSE HEREOF, WHICH FURTHER PROVISIONS SHALL FOR ALL PURPOSES HAVE THE SAME EFFECT AS IF SET FORTH AT THIS PLACE.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Senior Note shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____, 2017

PACIFIC GAS AND ELECTRIC COMPANY

By: David S. Thomason

Name: David S. Thomason

Title: Vice President, Chief Financial Officer and Controller

By: _____

Name: Nicholas M. Bijur

Title: Vice President and Treasurer

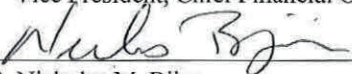
[Signature Page to the Reg. S Fixed Rate Global Note due 2047]

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____, 2017

PACIFIC GAS AND ELECTRIC COMPANY

By: _____
Name: David S. Thomason
Title: Vice President, Chief Financial Officer and Controller

By:  _____
Name: Nicholas M. Bijur
Title: Vice President and Treasurer

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

This Senior Note is one of the Bonds of the series designated 2047 Notes referred to in the within-mentioned Indenture.

Dated: 11-29-2017

THE BANK OF NEW YORK MELLON TRUST
COMPANY, N.A., *As Trustee*

By: _____



Authorized Signatory

Reverse of Senior Note

This 3.95% Senior Note due December 1, 2047 is one of a duly authorized issue of Bonds of the Company, issued and issuable in one or more series under the Indenture, dated as of November 29, 2017 (the “Indenture”), between the Company and The Bank of New York Mellon Trust Company, N.A., as Trustee (herein called the “Trustee,” which term includes any successor trustee under the Indenture), and reference is hereby made to the Indenture for a description of the respective rights, limitations of rights, duties and immunities of the Company, the Trustee and the Holders of Bonds thereunder and of the terms and conditions upon which Bonds are, and are to be, authenticated and delivered. This Senior Note is a Bond within the meaning of the Indenture and is designated as the 3.95% Senior Notes due December 1, 2047 established by the Company under the Indenture and initially issued in an aggregate principal amount of \$850,000 on November 29, 2017. The acceptance of this Senior Note shall be deemed to constitute the consent and agreement by the Holder hereof to all of the terms and provisions of the Indenture.

Subject to the terms and conditions of the Indenture, the Senior Notes are redeemable at the option of the Company (“Optional Redemption”), in whole or in part, (a) at any time prior to June 1, 2047 (the date that is six months prior to the Maturity Date) at a Redemption Price equal to the greater of:

(i) 100% of the principal amount of the Senior Notes to be redeemed; or

(ii) as determined by the Quotation Agent, the sum of the present values of the Remaining Scheduled Payments of principal and interest on the Senior Notes to be redeemed (not including any portion of payments of interest accrued as of the Redemption Date), calculated as if the Maturity Date of such Senior Notes was June 1, 2047 (the date that is six months prior to the Maturity Date), discounted to the Redemption Date on a semi-annual basis at the Adjusted Treasury Rate, plus 20 basis points,

plus, in either of the above cases, accrued and unpaid interest thereon to but not including the Redemption Date; and (b) at any time on or after June 1, 2047 (the date that is six months prior to the Maturity Date) at 100% of the principal amount of the Senior Notes to be redeemed, plus accrued and unpaid interest thereon to but not including the Redemption Date. For purposes of this Senior Note, “Comparable Treasury Issue” means the United States Treasury security selected by the applicable Quotation Agent as having a maturity comparable to the remaining term of this Senior Note, assuming, for such purpose, that this Senior Note matured on June 1, 2047 (the date that is six months prior to the Maturity Date)), that would be used, at the time of the selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of this Senior Note.

Interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to Holders of such Senior Notes, or one or more Predecessor Bonds, of record at the close of business on the relevant Record Dates referred to on the face hereof, all as provided in the Indenture.

In the case of an Optional Redemption, notice of redemption will be in writing and mailed first-class postage-prepaid not less than 10 days nor more than 60 days prior to the Redemption Date to each Holder of Senior Notes to be redeemed at the Holder’s registered address; provided, however, that such notice need not state the dollar amount of the Redemption Price if such dollar amount has not been determined as of the date such notice is being given to the Holders of the Senior Notes being redeemed. If money sufficient to pay the Redemption Price of all Senior Notes (or portions thereof) to be redeemed on the Redemption Date is deposited with the Paying Agent or the Trustee on or prior to the Redemption Date, from and after such Redemption Date such Senior Notes or portions thereof shall cease to bear interest. Senior Notes in denominations larger than \$2,000 in principal amount may be redeemed in part but only in integral multiples of \$1,000.

In the event of redemption of this Senior Note in part only, a new Senior Note or Senior Notes of like tenor for the unredeemed portion hereof will be issued in the name of the Holder hereof upon the surrender hereof.

As provided in the Indenture and subject to certain limitations therein set forth, this Senior Note or any portion of the principal amount hereof will be deemed to have been paid for all purposes of the Indenture and to be no longer Outstanding thereunder, and the Company's entire indebtedness in respect thereof will be satisfied and discharged, if there has been irrevocably deposited with the Trustee or any Paying Agent (other than the Company), in trust, money in an amount which will be sufficient and/or Eligible Obligations, the principal of and interest on which when due, without regard to any reinvestment thereof, will provide moneys which, together with money, if any, deposited with or held by the Trustee or such Paying Agent, will be sufficient to pay when due the principal of and premium, if any, and interest on this Senior Note when due.

If an Event of Default shall occur and be continuing, the Trustee or the Holders of not less than 33% in aggregate principal amount of the Outstanding Bonds, considered as one class, may declare the principal amount of all Bonds then Outstanding to be due and payable immediately by notice in writing to the Company (and to the Trustee if given by Holders); provided, however, that with respect to certain Events of Default relating to bankruptcy, insolvency and similar events, the principal amount of all Bonds then Outstanding shall be due and payable immediately without further action by the Trustee or the Holders.

The Indenture permits, with certain exceptions as therein provided, the Company and the Trustee to enter into one or more supplemental indentures for the purpose of adding any provisions to, or changing in any manner or eliminating any of the provisions of, the Indenture with the consent of the Holders of not less than a majority in aggregate principal amount of the Bonds at the time Outstanding, considered as one class; provided, however, that if there shall be Bonds of more than one series Outstanding under the Indenture and if a proposed supplemental indenture shall directly affect the rights of the Holders of Bonds of one or more, but less than all, of such series, then the consent only of the Holders of a majority in aggregate principal amount of the Outstanding Bonds of all series so directly affected, considered as one class, shall be required; and provided, further, that the Indenture permits the Company and the Trustee to enter into one or more supplemental indentures for certain purposes without the consent of any Holders of Bonds. The Indenture also contains provisions permitting the Holders of a majority in aggregate principal amount of Bonds, on behalf of the Holders of all such Bonds, to waive certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Senior Note shall be conclusive and binding upon such Holder and upon all future Holders of this Senior Note and of any Senior Note issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Senior Note.

As provided in and subject to the provisions of the Indenture, the Holder of this Senior Note shall not have the right to institute any proceeding with respect to the Indenture or for the appointment of a receiver or trustee or for any other remedy thereunder, unless such Holder shall have previously given the Trustee written notice of a continuing Event of Default, the Holders of at least 33% in aggregate principal amount of the Bonds at the time Outstanding shall have made written request to the Trustee to institute proceedings in respect of such Event of Default as Trustee and offered the Trustee reasonable indemnity, and the Trustee shall not have received from the Holders of at least a majority in aggregate principal amount of Bonds at the time Outstanding a direction inconsistent with such written request, and shall have failed to institute any such proceeding for 60 days after receipt of such notice, request and offer of indemnity. The foregoing shall not apply to any suit instituted by the Holder of this Senior Note for the enforcement of any payment of principal hereof or any premium or interest hereon on or after the respective due dates expressed herein.

No reference herein to the Indenture and no provision of this Senior Note or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and any premium and interest on this Senior Note at the times, place and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Senior Note is registrable in the Bond Register, upon surrender of this Senior Note for registration of transfer at the office or agency of the Company in any place where the principal of and any premium and interest on this Senior Note are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company, the Trustee or the Bond Registrar, as the case may be, duly executed by the Holder hereof or such Holder's attorney duly authorized in writing, and thereupon one or more new Senior Notes of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Senior Notes are issuable only in registered form without coupons in denominations of \$100,000 and any integral multiple of \$1,000 in excess thereof. As provided in the Indenture and subject to certain limitations therein set forth, Senior Notes are exchangeable for a like aggregate principal amount of Senior Notes and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

The Company shall not be required to execute or to provide for the registration of the transfer of or the exchange of (A) any Senior Note of this series during a period of 15 days immediately preceding the date notice is to be given identifying the serial numbers of the Senior Notes called for redemption, or (B) any Senior Note selected for redemption in whole or in part, except the unredeemed portion of any Senior Note being redeemed in part.

Prior to due presentment of this Senior Note for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Senior Note is registered as the owner hereof for all purposes, whether or not this Senior Note is overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

This Senior Note shall be governed by, and construed and enforced in accordance with, the laws of the State of New York without regard to the principles of conflicts of laws thereunder, except to the extent that the Trust Indenture Act shall be applicable.

As provided in the Indenture, no recourse shall be had for the payment of the principal of, premium, if any, or interest with respect to this Senior Note, or any part thereof, or for any claim based hereon or otherwise in respect hereof, or of the indebtedness represented hereby, or upon any obligation, covenant or agreement under the Indenture or the Registration Rights Agreement, against any incorporator, shareholder, officer or director, as such, past, present or future, of the Company or of any predecessor or successor corporation (either directly or through the Company or a predecessor or successor corporation), whether by virtue of any constitutional provision, statute or rule of law or by the enforcement of any assessment or penalty or otherwise; it being expressly agreed and understood that the Indenture and all the Bonds are solely corporate obligations and that any such personal liability is hereby expressly waived and released as a condition of, and as part of the consideration for, the execution of the Indenture and the issuance of this Senior Note.

All terms used in this Senior Note which are not defined herein shall have the meanings assigned to them in the Indenture.

ASSIGNMENT FORM

To assign this Security, fill in the form below:

I or we assign and transfer this Security to

(Print or type assignee's name, address and zip code)

(Insert assignee's soc. sec. or tax I.D. No.)

and irrevocably appoint _____ agent to transfer this Security on the books of the Company. The agent may substitute another to act for him.

Date: _____

Your signature: _____

Sign exactly as your name appears on the other side of this Security.

Signature Guarantee:

(Signature must be guaranteed)

Signatures must be guaranteed by an "eligible guarantor institution" meeting the requirements of the Registrar, which requirements include membership or participation in the Security Transfer Agent Medallion Program ("STAMP") or such other "signature guarantee program" as may be determined by the Registrar in addition to, or in substitution for, STAMP, all in accordance with the Securities Exchange Act of 1934, as amended.

In connection with any transfer of any of the Securities evidenced by this certificate occurring prior to one year (or such shorter period of time as permitted by Rule 144 under the Securities Act or any successor provision thereto) after the later of the Issue Date hereof and the last date, if any, on which such Securities were owned by the Company or any Affiliate of the Company (or, in the case of Regulation S Securities, prior to the expiration of the Restricted Period), the undersigned confirms that such Securities are being transferred in accordance with their terms:

CHECK ONE BOX BELOW

- (1) ☐ to the Company or any Subsidiary thereof; or
- (2) ☐ pursuant to a registration statement which has become effective under the Securities Act of 1933, as amended (the "Securities Act"); or
- (3) ☐ for so long as the Securities are eligible for resale pursuant to Rule 144A, to a person who the undersigned reasonably believes is a "qualified institutional buyer" (as defined in Rule 144A under the Securities Act) that is purchasing for its own account or for the account of a qualified institutional buyer to whom notice is given that such transfer is being made in reliance on Rule 144A, in each case pursuant to and in compliance with Rule 144A under the Securities Act; or
- (4) ☐ pursuant to offers and sales that occur outside the United States within the meaning of Regulation S under the Securities Act in compliance with Rule 904 under the Securities Act; or
- (5) ☐ pursuant to another exemption from registration under the Securities Act.

Unless one of the boxes is checked, the Trustee will refuse to register any of the Securities evidenced by this certificate in the name of any person other than the registered holder thereof; *provided, however*, that if box (5) is checked, the Company and the Trustee shall be entitled to require, prior to registering any such transfer of the Securities, such legal opinions, certifications or other evidence as may reasonably be required in order to

determine that the proposed transfer is being made in compliance with the Securities Act and applicable state securities laws.

Signature

SCHEDULE OF EXCHANGES OF INTERESTS IN THE GLOBAL BOND

The initial principal amount of this Global Bond is \$18,225,000. The following increases or decreases in this Global Bond have been made:

Date of Exchange	Amount of decrease in Principal Amount of this Global Bond	Amount of increase in Principal Amount of this Global Bond	Principal Amount of this Global Bond following such decrease (or increase)	Signature of authorized officer of Trustee or Depository
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3.95% SENIOR NOTES DUE DECEMBER 1, 2047

THIS BOND IS A GLOBAL BOND WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY (AS DEFINED IN THE INDENTURE) OR A NOMINEE THEREOF. THIS GLOBAL BOND IS EXCHANGEABLE FOR BONDS REGISTERED IN THE NAME OF ANY PERSON OTHER THAN SUCH DEPOSITARY OR ITS NOMINEE ONLY IN LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE AND, UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR BONDS IN CERTIFICATED FORM, THIS GLOBAL BOND MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITARY TO A NOMINEE OF THE DEPOSITARY, OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANOTHER NOMINEE OF THE DEPOSITARY, OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY.

UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITARY TRUST COMPANY, A NEW YORK CORPORATION (“DTC”), TO THE COMPANY (AS DEFINED BELOW) OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY BOND ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

THIS BOND HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED PRIOR TO (I) THE DATE (THE “RESALE RESTRICTION TERMINATION DATE”) THAT IS ONE YEAR AFTER THE LAST ORIGINAL ISSUE DATE HEREOF OR SUCH SHORTER PERIOD OF TIME AS PERMITTED BY RULE 144 UNDER THE SECURITIES ACT OR ANY SUCCESSOR PROVISION THERETO AND (II) A LATER DATE, IF ANY, AS MAY BE REQUIRED BY APPLICABLE LAW, OTHER THAN (A)(1) TO PACIFIC GAS AND ELECTRIC COMPANY (THE “COMPANY”) OR ONE OF ITS SUBSIDIARIES, (2) IN A TRANSACTION ENTITLED TO AN EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT, (3) SO LONG AS THIS BOND IS ELIGIBLE FOR RESALE PURSUANT TO RULE 144A UNDER THE SECURITIES ACT (“RULE 144A”), TO A PERSON WHOM THE SELLER REASONABLY BELIEVES IS A “QUALIFIED INSTITUTIONAL BUYER” WITHIN THE MEANING OF RULE 144A PURCHASING FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER TO WHOM NOTICE IS GIVEN THAT THE RESALE, PLEDGE OR OTHER TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A (AS INDICATED BY THE BOX CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (4) IN AN OFFSHORE TRANSACTION IN ACCORDANCE WITH RULE 903 OR RULE 904 OF REGULATION S UNDER THE SECURITIES ACT (AS INDICATED BY THE

BOX CHECKED BY THE TRANSFEROR ON THE CERTIFICATE OF TRANSFER ON THE REVERSE OF THIS BOND), (5) IN ACCORDANCE WITH ANOTHER APPLICABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT (AND BASED UPON AN OPINION OF COUNSEL ACCEPTABLE TO THE COMPANY) OR (6) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT AND (B) IN EACH CASE IN ACCORDANCE WITH ANY APPLICABLE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES OR IN ANY OTHER APPLICABLE JURISDICTION. THE HOLDER HEREOF, BY PURCHASING THIS BOND, REPRESENTS AND AGREES FOR THE BENEFIT OF THE COMPANY THAT IT IS (1) A QUALIFIED INSTITUTIONAL BUYER WITHIN THE MEANING OF RULE 144A OR (2) A NON-US PERSON OUTSIDE THE UNITED STATES WITHIN THE MEANING OF, OR AN ACCOUNT SATISFYING THE REQUIREMENTS OF PARAGRAPH (K)(2) OF RULE 902 UNDER, REGULATION S UNDER THE SECURITIES ACT”.

SOLELY FOR UNITED STATES FEDERAL INCOME TAX PURPOSES, THIS BOND WILL BE TREATED AS ISSUED WITH ORIGINAL ISSUE DISCOUNT (“OID”). UPON REQUEST, THE COMPANY WILL PROMPTLY MAKE AVAILABLE TO A HOLDER OF THIS BOND THE FOLLOWING INFORMATION: (1) THE ISSUE PRICE AND ISSUE DATE OF THIS BOND, (2) THE AMOUNT OF OID, (3) THE YIELD TO MATURITY OF THIS BOND, AND (4) ANY OTHER INFORMATION REQUIRED TO BE MADE AVAILABLE BY U.S. TREASURY REGULATIONS. HOLDERS SHOULD CONTACT THE CHIEF FINANCIAL OFFICER AT 77 BEALE STREET, SAN FRANCISCO, CA 94105.

THE FOLLOWING SUMMARY OF TERMS IS SUBJECT TO THE INFORMATION SET FORTH ON THE REVERSE HEREOF:

PRINCIPAL AMOUNT:
\$331,775,000

ISSUE DATE:
November 29, 2017

INTEREST RATE:
3.95% per annum

MATURITY DATE:
December 1, 2047

INTEREST PAYMENT DATES:
June 1 and December 1, commencing
June 1, 2018

THIS SENIOR NOTE IS A:
☒ Global Book-Entry Bond
☐ Certificated Bond

REGISTERED OWNER: Cede & Co., as
nominee of The Depository Trust
Company

PACIFIC GAS AND ELECTRIC COMPANY

3.95% SENIOR NOTES DUE DECEMBER 1, 2047

(Fixed Rate)

No. A-2
CUSIP No: 694308 HX8

Principal Amount: \$331,775,000

PACIFIC GAS AND ELECTRIC COMPANY, a corporation duly organized and existing under the laws of the State of California (herein called the "Company," which term includes any successor Person pursuant to the applicable provisions of the Indenture hereinafter referred to), for value received, hereby promises to pay to Cede & Co., as nominee for The Depository Trust Company, or registered assigns, the Principal Amount stated above on the Maturity Date stated above, and to pay interest thereon from and including the Issue Date stated above or, in the case of a 3.95% Senior Note due December 1, 2047 issued upon the registration of transfer or exchange, from and including the most recent Interest Payment Date to which interest has been paid or duly provided for, semi-annually in arrears on the Interest Payment Dates set forth above and on the Maturity Date stated above, commencing June 1, 2018 at the rate of 3.95% per annum until the principal hereof is paid or made available for payment; provided, however, that, upon the occurrence or failure to occur of certain events specified in the Registration Rights Agreement, the Company shall, subject to the terms and conditions set forth in the Registration Rights Agreement, pay additional interest on the principal amount of this Note after such event occurs or fails to occur so long as such event continues or fails to occur, as the case may be. Such additional interest shall be payable in addition to any other interest payable from time to time with respect to this Note. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this 3.95% Senior Note due December 1, 2047 (this "Senior Note," and together with all other 3.95% Senior Notes due December 1, 2047, the "Senior Notes") (or one or more Predecessor Bonds) is registered at the close of business on the Regular Record Date for such interest, which shall be the May 15 and November 15 preceding such Interest Payment Date; provided, however, that interest payable at the Maturity Date or on a Redemption Date will be paid to the Person to whom principal is payable. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such Regular Record Date and may either be paid to the Person in whose name this Senior Note (or one or more Predecessor Bonds) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Senior Notes not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of the Indenture and any securities exchange, if any, on which the Senior Notes may be listed, and upon such notice as may be required by any such exchange, all as more fully provided in said Indenture.

Payments of interest on this Senior Note will include interest accrued to but excluding the respective Interest Payment Dates. Interest payments for this Senior Note shall be computed and paid on the basis of the 360-day year of twelve 30-day months and will accrue from November 29, 2017 or from the most recent Interest Payment Date to which interest has been paid or duly provided for. In the event that any date on which interest is payable on this Senior Note (other than the Maturity Date) is not a Business Day then payment of the interest payable on such date will be made on the next succeeding day that is a Business Day (and without any interest or payment in respect of any such delay) with the same force and effect as if made on the date the payment was originally payable. If the Maturity Date falls on a day that is not a Business Day, the payment of principal, premium, if any, and interest may be made on the next succeeding Business Day, and no interest on such payment shall accrue for the period from and after maturity.

Payment of principal of, premium, if any, and interest on Senior Notes shall be made in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts. Payments of principal of, premium, if any, and interest on the Senior Notes represented by a Global Bond shall be made by wire transfer of immediately available funds to the Holder of such Global Bond, provided that, in the case of payments of principal and premium, if any, such Global Bond is first surrendered to the Paying Agent. If any of the Senior Notes are no longer represented by a Global Bond, (i) payments of principal, premium, if any, and interest due on the Maturity Date or earlier redemption of such Senior Notes shall be made at the office of the Paying Agent upon surrender of such Senior Notes to the Paying Agent, and (ii) payments of interest shall be made, at the option of the Company, subject to such surrender where applicable, (A) by check mailed to the address of the Person entitled thereto as such address shall appear in the Bond Register or (B) by wire transfer to registered Holders of at least \$10,000,000

in principal amount of Senior Notes at such place and to such account at a banking institution in the United States as such Holders may designate in writing to the Trustee at least sixteen (16) days prior to the date for payment.

REFERENCE IS HEREBY MADE TO THE FURTHER PROVISIONS OF THIS SENIOR NOTE SET FORTH ON THE REVERSE HEREOF, WHICH FURTHER PROVISIONS SHALL FOR ALL PURPOSES HAVE THE SAME EFFECT AS IF SET FORTH AT THIS PLACE.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Senior Note shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____, 2017

PACIFIC GAS AND ELECTRIC COMPANY

By: David S. Thomason

Name: David S. Thomason

Title: Vice President, Chief Financial Officer and Controller

By: _____

Name: Nicholas M. Bijur

Title: Vice President and Treasurer

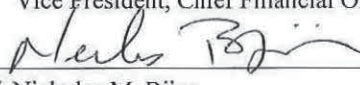
[Signature Page to the 144A Fixed Rate Global Note due 2047]

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____, 2017

PACIFIC GAS AND ELECTRIC COMPANY

By: _____
Name: David S. Thomason
Title: Vice President, Chief Financial Officer and Controller

By:  _____
Name: Nicholas M. Bijur
Title: Vice President and Treasurer

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

This Senior Note is one of the Bonds of the series designated 2047 Notes referred to in the within-mentioned Indenture.

Dated: 11-29-2017

THE BANK OF NEW YORK MELLON TRUST
COMPANY, N.A., *As Trustee*

By: _____


Authorized Signatory

Reverse of Senior Note

This 3.95% Senior Note due December 1, 2047 is one of a duly authorized issue of Bonds of the Company, issued and issuable in one or more series under the Indenture, dated as of November 29, 2017 (the “Indenture”), between the Company and The Bank of New York Mellon Trust Company, N.A., as Trustee (herein called the “Trustee,” which term includes any successor trustee under the Indenture), and reference is hereby made to the Indenture for a description of the respective rights, limitations of rights, duties and immunities of the Company, the Trustee and the Holders of Bonds thereunder and of the terms and conditions upon which Bonds are, and are to be, authenticated and delivered. This Senior Note is a Bond within the meaning of the Indenture and is designated as the 3.95% Senior Notes due December 1, 2047 established by the Company under the Indenture and initially issued in an aggregate principal amount of \$850,000 on November 29, 2017. The acceptance of this Senior Note shall be deemed to constitute the consent and agreement by the Holder hereof to all of the terms and provisions of the Indenture.

Subject to the terms and conditions of the Indenture, the Senior Notes are redeemable at the option of the Company (“Optional Redemption”), in whole or in part, (a) at any time prior to June 1, 2047 (the date that is six months prior to the Maturity Date) at a Redemption Price equal to the greater of:

(i) 100% of the principal amount of the Senior Notes to be redeemed; or

(ii) as determined by the Quotation Agent, the sum of the present values of the Remaining Scheduled Payments of principal and interest on the Senior Notes to be redeemed (not including any portion of payments of interest accrued as of the Redemption Date), calculated as if the Maturity Date of such Senior Notes was June 1, 2047 (the date that is six months prior to the Maturity Date), discounted to the Redemption Date on a semi-annual basis at the Adjusted Treasury Rate, plus 20 basis points,

plus, in either of the above cases, accrued and unpaid interest thereon to but not including the Redemption Date; and (b) at any time on or after June 1, 2047 (the date that is six months prior to the Maturity Date) at 100% of the principal amount of the Senior Notes to be redeemed, plus accrued and unpaid interest thereon to but not including the Redemption Date. For purposes of this Senior Note, “Comparable Treasury Issue” means the United States Treasury security selected by the applicable Quotation Agent as having a maturity comparable to the remaining term of this Senior Note, assuming, for such purpose, that this Senior Note matured on June 1, 2047 (the date that is six months prior to the Maturity Date)), that would be used, at the time of the selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of this Senior Note.

Interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to Holders of such Senior Notes, or one or more Predecessor Bonds, of record at the close of business on the relevant Record Dates referred to on the face hereof, all as provided in the Indenture.

In the case of an Optional Redemption, notice of redemption will be in writing and mailed first-class postage-prepaid not less than 10 days nor more than 60 days prior to the Redemption Date to each Holder of Senior Notes to be redeemed at the Holder’s registered address; provided, however, that such notice need not state the dollar amount of the Redemption Price if such dollar amount has not been determined as of the date such notice is being given to the Holders of the Senior Notes being redeemed. If money sufficient to pay the Redemption Price of all Senior Notes (or portions thereof) to be redeemed on the Redemption Date is deposited with the Paying Agent or the Trustee on or prior to the Redemption Date, from and after such Redemption Date such Senior Notes or portions thereof shall cease to bear interest. Senior Notes in denominations larger than \$2,000 in principal amount may be redeemed in part but only in integral multiples of \$1,000.

In the event of redemption of this Senior Note in part only, a new Senior Note or Senior Notes of like tenor for the unredeemed portion hereof will be issued in the name of the Holder hereof upon the surrender hereof.

As provided in the Indenture and subject to certain limitations therein set forth, this Senior Note or any portion of the principal amount hereof will be deemed to have been paid for all purposes of the Indenture and to be no longer Outstanding thereunder, and the Company's entire indebtedness in respect thereof will be satisfied and discharged, if there has been irrevocably deposited with the Trustee or any Paying Agent (other than the Company), in trust, money in an amount which will be sufficient and/or Eligible Obligations, the principal of and interest on which when due, without regard to any reinvestment thereof, will provide moneys which, together with money, if any, deposited with or held by the Trustee or such Paying Agent, will be sufficient to pay when due the principal of and premium, if any, and interest on this Senior Note when due.

If an Event of Default shall occur and be continuing, the Trustee or the Holders of not less than 33% in aggregate principal amount of the Outstanding Bonds, considered as one class, may declare the principal amount of all Bonds then Outstanding to be due and payable immediately by notice in writing to the Company (and to the Trustee if given by Holders); provided, however, that with respect to certain Events of Default relating to bankruptcy, insolvency and similar events, the principal amount of all Bonds then Outstanding shall be due and payable immediately without further action by the Trustee or the Holders.

The Indenture permits, with certain exceptions as therein provided, the Company and the Trustee to enter into one or more supplemental indentures for the purpose of adding any provisions to, or changing in any manner or eliminating any of the provisions of, the Indenture with the consent of the Holders of not less than a majority in aggregate principal amount of the Bonds at the time Outstanding, considered as one class; provided, however, that if there shall be Bonds of more than one series Outstanding under the Indenture and if a proposed supplemental indenture shall directly affect the rights of the Holders of Bonds of one or more, but less than all, of such series, then the consent only of the Holders of a majority in aggregate principal amount of the Outstanding Bonds of all series so directly affected, considered as one class, shall be required; and provided, further, that the Indenture permits the Company and the Trustee to enter into one or more supplemental indentures for certain purposes without the consent of any Holders of Bonds. The Indenture also contains provisions permitting the Holders of a majority in aggregate principal amount of Bonds, on behalf of the Holders of all such Bonds, to waive certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Senior Note shall be conclusive and binding upon such Holder and upon all future Holders of this Senior Note and of any Senior Note issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Senior Note.

As provided in and subject to the provisions of the Indenture, the Holder of this Senior Note shall not have the right to institute any proceeding with respect to the Indenture or for the appointment of a receiver or trustee or for any other remedy thereunder, unless such Holder shall have previously given the Trustee written notice of a continuing Event of Default, the Holders of at least 33% in aggregate principal amount of the Bonds at the time Outstanding shall have made written request to the Trustee to institute proceedings in respect of such Event of Default as Trustee and offered the Trustee reasonable indemnity, and the Trustee shall not have received from the Holders of at least a majority in aggregate principal amount of Bonds at the time Outstanding a direction inconsistent with such written request, and shall have failed to institute any such proceeding for 60 days after receipt of such notice, request and offer of indemnity. The foregoing shall not apply to any suit instituted by the Holder of this Senior Note for the enforcement of any payment of principal hereof or any premium or interest hereon on or after the respective due dates expressed herein.

No reference herein to the Indenture and no provision of this Senior Note or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and any premium and interest on this Senior Note at the times, place and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Senior Note is registrable in the Bond Register, upon surrender of this Senior Note for registration of transfer at the office or agency of the Company in any place where the principal of and any premium and interest on this Senior Note are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company, the Trustee or the Bond Registrar, as the case may be, duly executed by the Holder hereof or such Holder's attorney duly authorized in writing, and thereupon one or more new Senior Notes of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Senior Notes are issuable only in registered form without coupons in denominations of \$100,000 and any integral multiple of \$1,000 in excess thereof. As provided in the Indenture and subject to certain limitations therein set forth, Senior Notes are exchangeable for a like aggregate principal amount of Senior Notes and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

The Company shall not be required to execute or to provide for the registration of the transfer of or the exchange of (A) any Senior Note of this series during a period of 15 days immediately preceding the date notice is to be given identifying the serial numbers of the Senior Notes called for redemption, or (B) any Senior Note selected for redemption in whole or in part, except the unredeemed portion of any Senior Note being redeemed in part.

Prior to due presentment of this Senior Note for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Senior Note is registered as the owner hereof for all purposes, whether or not this Senior Note is overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

This Senior Note shall be governed by, and construed and enforced in accordance with, the laws of the State of New York without regard to the principles of conflicts of laws thereunder, except to the extent that the Trust Indenture Act shall be applicable.

As provided in the Indenture, no recourse shall be had for the payment of the principal of, premium, if any, or interest with respect to this Senior Note, or any part thereof, or for any claim based hereon or otherwise in respect hereof, or of the indebtedness represented hereby, or upon any obligation, covenant or agreement under the Indenture or the Registration Rights Agreement, against any incorporator, shareholder, officer or director, as such, past, present or future, of the Company or of any predecessor or successor corporation (either directly or through the Company or a predecessor or successor corporation), whether by virtue of any constitutional provision, statute or rule of law or by the enforcement of any assessment or penalty or otherwise; it being expressly agreed and understood that the Indenture and all the Bonds are solely corporate obligations and that any such personal liability is hereby expressly waived and released as a condition of, and as part of the consideration for, the execution of the Indenture and the issuance of this Senior Note.

All terms used in this Senior Note which are not defined herein shall have the meanings assigned to them in the Indenture.

ASSIGNMENT FORM

To assign this Security, fill in the form below:

I or we assign and transfer this Security to

(Print or type assignee's name, address and zip code)

(Insert assignee's soc. sec. or tax I.D. No.)

and irrevocably appoint _____ agent to transfer this Security on the books of the Company. The agent may substitute another to act for him.

Date: _____

Your signature: _____

Sign exactly as your name appears on the other side of this Security.

Signature Guarantee:

(Signature must be guaranteed)

Signatures must be guaranteed by an "eligible guarantor institution" meeting the requirements of the Registrar, which requirements include membership or participation in the Security Transfer Agent Medallion Program ("STAMP") or such other "signature guarantee program" as may be determined by the Registrar in addition to, or in substitution for, STAMP, all in accordance with the Securities Exchange Act of 1934, as amended.

In connection with any transfer of any of the Securities evidenced by this certificate occurring prior to one year (or such shorter period of time as permitted by Rule 144 under the Securities Act or any successor provision thereto) after the later of the Issue Date hereof and the last date, if any, on which such Securities were owned by the Company or any Affiliate of the Company (or, in the case of Regulation S Securities, prior to the expiration of the Restricted Period), the undersigned confirms that such Securities are being transferred in accordance with their terms:

CHECK ONE BOX BELOW

- (1) ☐ to the Company or any Subsidiary thereof; or
- (2) ☐ pursuant to a registration statement which has become effective under the Securities Act of 1933, as amended (the "Securities Act"); or
- (3) ☐ for so long as the Securities are eligible for resale pursuant to Rule 144A, to a person who the undersigned reasonably believes is a "qualified institutional buyer" (as defined in Rule 144A under the Securities Act) that is purchasing for its own account or for the account of a qualified institutional buyer to whom notice is given that such transfer is being made in reliance on Rule 144A, in each case pursuant to and in compliance with Rule 144A under the Securities Act; or
- (4) ☐ pursuant to offers and sales that occur outside the United States within the meaning of Regulation S under the Securities Act in compliance with Rule 904 under the Securities Act; or
- (5) ☐ pursuant to another exemption from registration under the Securities Act.

Unless one of the boxes is checked, the Trustee will refuse to register any of the Securities evidenced by this certificate in the name of any person other than the registered holder thereof; provided, however, that if box (5) is checked, the Company and the Trustee shall be entitled to require, prior to registering any such transfer of the Securities, such legal opinions, certifications or other evidence as may reasonably be required in order to determine that the proposed transfer is being made in compliance with the Securities Act and applicable state securities laws.

Signature

SCHEDULE OF EXCHANGES OF INTERESTS IN THE GLOBAL BOND

The initial principal amount of this Global Bond is \$331,775,000. The following increases or decreases in this Global Bond have been made:

Date of Exchange	Amount of decrease in Principal Amount of this Global Bond	Amount of increase in Principal Amount of this Global Bond	Principal Amount of this Global Bond following such decrease (or increase)	Signature of authorized officer of Trustee or Depository
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OFFICER'S CERTIFICATE
PURSUANT TO SECTION 1.02 OF THE INDENTURE

The undersigned officer of Pacific Gas and Electric Company (the “Company”), pursuant to Section 1.02 of the Indenture, dated as of November 29, 2017 (the “Indenture”), between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee (the “Trustee”), hereby certifies, in connection with the execution and delivery of the Indenture and the authentication and delivery of \$500,000,000 aggregate principal amount of the Company’s Floating Rate Senior Notes due 2018 (the “2018 Notes”), \$1,150,000,000 aggregate principal amount of the Company’s 3.30% Senior Notes due 2027 (the “2027 Notes”) and \$850,000,000 aggregate principal amount of the Company’s 3.95% Senior Notes due 2047 (the “2047 Notes”, and together with the 2018 Notes and the 2027 Notes, the “Notes”) by the Trustee on the date hereof, as follows:

1. I have read the provisions of the Indenture setting forth the conditions precedent relating to the execution of the Indenture, the authentication and delivery of the Notes by the Trustee, and the definitions in the Indenture relating thereto.

2. I have examined the resolutions adopted by the Board of Directors of the Company on November 25, 2017, December 16, 2016 and December 16, 2009, and corporate records of the Company, agreements, and other instruments and documents deemed necessary as a basis for the opinion hereinafter expressed.

3. In the opinion of the undersigned such examination is sufficient to enable me to express an informed opinion as to whether or not the conditions precedent referred to above have been complied with.

4. I am of the opinion that the conditions precedent referred to above have been complied with.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, I have executed this Officer's Certificate this 29th day of
November, 2017.

A handwritten signature in black ink, appearing to read "Nicholas M. Bijur", written over a horizontal line.

Name: Nicholas M. Bijur

Title: Vice President and Treasurer

[SIGNATURE PAGE TO OFFICER'S CERTIFICATE PURSUANT TO INDENTURE]

PACIFIC GAS AND ELECTRIC COMPANY
AUTHENTICATION AND DELIVERY ORDER

November 29, 2017

The Bank of New York Mellon Trust Company, N.A.
400 South Hope Street, Suite 500
Los Angeles, CA 90071

Ladies and Gentlemen:

We have delivered to you the documents and certificates listed in Section 5.01 of the Indenture, dated as of November 29, 2017, between Pacific Gas and Electric Company, a California corporation (the “Company”), and you, as trustee thereunder (the “Indenture”). Pursuant to Section 3.01 of the Indenture, you are hereby requested and directed to authenticate, in the manner provided in the Indenture, the global note certificates listed in Schedule A hereto, heretofore duly executed by proper officers of the Company and delivered to you as provided in the Indenture, and to deliver said certificates registered in the name(s) as set forth on Schedule A hereto on November 29, 2017.

[Signature Page Follows]

Very truly yours,

PACIFIC GAS AND ELECTRIC COMPANY

By

A handwritten signature in cursive script, appearing to read "Nicholas Bijur", written over a horizontal line.

Name: Nicholas M. Bijur

Title: Vice President and Treasurer

[Signature Page to Authentication Order]

SCHEDULE A

PACIFIC GAS AND ELECTRIC COMPANY

Name of Global Notes	Registered Owner	Deliver To	Certificate No.	Principal Amount	CUSIP No.	ISIN No.
3.30% Senior Note due December 1, 2027	Cede & Co.	The Depository Trust Company* 55 Water Street New York, New York 10041	A-1	\$500,000,000	694308 HV2	US694308 HV21
			A-2	\$500,000,000	694308 HV2	US694308 HV21
			A-3	\$109,400,000	694308 HV2	US694308 HV21
			S-1	\$40,600,000	U69430 AE3	USU69430 AE36
3.95% Senior Note due December 1, 2047	Cede & Co.	The Depository Trust Company* 55 Water Street New York, New York 10041	A-1	\$500,000,000	694308 HX8	US694308 HX86
			A-2	\$331,775,000	694308 HX8	US694308 HX86
			S-1	\$18,225,000	U69430 AF0	USU69430 AF01
Floating Rate Senior Note due November 27, 2018	Cede & Co.	The Depository Trust Company* 55 Water Street New York, New York 10041	A-1	\$488,000,000	694308 HT7	US694308 HT74
			S-1	\$12,000,000	U69430 AD5	USU69430 AD52

*The Trustee holds the global notes as custodian for The Depository Trust Company.

ACKNOWLEDGEMENT OF THE TRUSTEE

The undersigned, a duly authorized officer of The Bank of New York Mellon Trust Company, N.A., as trustee (the “Trustee”) under the Indenture, dated as of November 29, 2017, (the “Indenture”), between Pacific Gas and Electric Company, a California corporation, and the Trustee, does hereby acknowledge that the Trustee has authenticated, in the manner provided in the Indenture, the global note certificates listed in Schedule A hereto, and has delivered said certificates registered in the name as set forth on Schedule A hereto on the date hereof.

[Signature Page Follows]

Dated: November 29, 2017

**THE BANK OF NEW YORK MELLON
TRUST COMPANY, N.A., as Trustee**

By 
Name: R. Tarnas
Title: Vice President

[SIGNATURE PAGE TO ACKNOWLEDGEMENT OF THE TRUSTEE]

SCHEDULE A**PACIFIC GAS AND ELECTRIC COMPANY**

<u>Name of Global Notes</u>	<u>Registered Owner</u>	<u>Deliver To</u>	<u>Certificate No.</u>	<u>Principal Amount</u>	<u>CUSIP No.</u>	<u>ISIN No.</u>
3.30% Senior Note due December 1, 2027	Cede & Co.	The Depository Trust Company* 55 Water Street New York, New York 10041	A-1	\$500,000,000	694308 HV2	US694308 HV21
			A-2	\$500,000,000	694308 HV2	US694308 HV21
			A-3	\$109,400,000	694308 HV2	US694308 HV21
			S-1	\$40,600,000	U69430 AE3	USU69430 AE36
3.95% Senior Note due December 1, 2047	Cede & Co.	The Depository Trust Company* 55 Water Street New York, New York 10041	A-1	\$500,000,000	694308 HX8	US694308 HX86
			A-2	\$331,775,000	694308 HX8	US694308 HX86
			S-1	\$18,225,000	U69430 AF0	USU69430 AF01
Floating Rate Senior Note due November 27, 2018	Cede & Co.	The Depository Trust Company* 55 Water Street New York, New York 10041	A-1	\$488,000,000	694308 HT7	US694308 HT74
			S-1	\$12,000,000	U69430 AD5	USU69430 AD52

*The Trustee holds the global notes as custodian for The Depository Trust Company.

CROSS RECEIPT

November 29, 2017

Reference is hereby made to the Purchase Agreement, dated November 27, 2017 (the "Purchase Agreement"), among Pacific Gas and Electric Company, a California corporation (the "Company"), and Barclays Capital Inc., Citigroup Global Markets Inc., J.P. Morgan Securities LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated and Morgan Stanley & Co. LLC, as representatives (collectively, the "Representatives") of the initial purchasers named in Schedules I-A, I-B and I-C thereto (the "Initial Purchasers").

The Company hereby acknowledges receipt from the Representatives of payment of (i) \$499,250,000 as full and complete payment of the purchase price for \$500,000,000 aggregate principal amount of the Company's floating rate Senior Notes due November 28, 2018 (the "2018 Notes"), (ii) \$1,139,121,000 as full and complete payment of the purchase price for \$1,150,000,000 aggregate principal amount of the Company's 3.30% Senior Notes due December 1, 2027 (the "2027 Notes") and (iii) \$838,856,500 as full and complete payment of the purchase price for \$850,000,000 aggregate principal amount of the Company's 3.95% Senior Notes due December 1, 2047 (the "2047 Notes" and, together with the 2018 Notes and the 2027 Notes, the "Notes"), in full satisfaction of the obligation of the Initial Purchasers through the Representatives to pay for the Notes, pursuant to the Purchase Agreement.


The Representatives, on behalf of the Initial Purchasers, hereby acknowledge receipt from the Company for the respective accounts of the Initial Purchasers of (i) \$500,000,000 aggregate principal amount of the 2018 Notes, (ii) \$1,150,000,000 aggregate principal amount of the 2027 Notes and (iii) \$850,000,000 aggregate principal amount of the 2047 Notes.

This Cross Receipt may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, but all such counterparts shall together constitute but one and the same instrument.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the undersigned have executed this Cross Receipt as of the date first set forth above.

Pacific Gas and Electric Company

By: 
Name: Nicholas M. Bijur
Title: Vice President and Treasurer

[Signature Page to Cross Receipt]

OFFICER'S CERTIFICATE
PURSUANT TO SECTION 1.02 OF THE INDENTURE

The undersigned officer of Pacific Gas and Electric Company (the “Company”), pursuant to Section 1.02 of the Indenture, dated as of November 29, 2017 (the “Indenture”), between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee (the “Trustee”), hereby certifies, in connection with the execution and delivery of the Indenture and the authentication and delivery of \$500,000,000 aggregate principal amount of the Company’s Floating Rate Senior Notes due 2018 (the “2018 Notes”), \$1,150,000,000 aggregate principal amount of the Company’s 3.30% Senior Notes due 2027 (the “2027 Notes”) and \$850,000,000 aggregate principal amount of the Company’s 3.95% Senior Notes due 2047 (the “2047 Notes”, and together with the 2018 Notes and the 2027 Notes, the “Notes”) by the Trustee on the date hereof, as follows:

1. I have read the provisions of the Indenture setting forth the conditions precedent relating to the execution of the Indenture, the authentication and delivery of the Notes by the Trustee, and the definitions in the Indenture relating thereto.

2. I have examined the resolutions adopted by the Board of Directors of the Company on November 25, 2017, December 16, 2016 and December 16, 2009, and corporate records of the Company, agreements, and other instruments and documents deemed necessary as a basis for the opinion hereinafter expressed.

3. In the opinion of the undersigned such examination is sufficient to enable me to express an informed opinion as to whether or not the conditions precedent referred to above have been complied with.

4. I am of the opinion that the conditions precedent referred to above have been complied with.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, I have executed this Officer's Certificate this 29th day of
November, 2017.

A handwritten signature in black ink, appearing to read "Nicholas M. Bijur", written over a horizontal line.

Name: Nicholas M. Bijur

Title: Vice President and Treasurer

[SIGNATURE PAGE TO OFFICER'S CERTIFICATE PURSUANT TO INDENTURE]

PACIFIC GAS AND ELECTRIC COMPANY
AUTHENTICATION AND DELIVERY ORDER

November 29, 2017

The Bank of New York Mellon Trust Company, N.A.
400 South Hope Street, Suite 500
Los Angeles, CA 90071

Ladies and Gentlemen:

We have delivered to you the documents and certificates listed in Section 5.01 of the Indenture, dated as of November 29, 2017, between Pacific Gas and Electric Company, a California corporation (the “Company”), and you, as trustee thereunder (the “Indenture”). Pursuant to Section 3.01 of the Indenture, you are hereby requested and directed to authenticate, in the manner provided in the Indenture, the global note certificates listed in Schedule A hereto, heretofore duly executed by proper officers of the Company and delivered to you as provided in the Indenture, and to deliver said certificates registered in the name(s) as set forth on Schedule A hereto on November 29, 2017.

[Signature Page Follows]

Very truly yours,

PACIFIC GAS AND ELECTRIC COMPANY

By

A handwritten signature in black ink, appearing to read "Nicholas Bijur", written over a horizontal line.

Name: Nicholas M. Bijur

Title: Vice President and Treasurer

[Signature Page to Authentication Order]

2-Exh.2.7-247

SCHEDULE A**PACIFIC GAS AND ELECTRIC COMPANY**

<u>Name of Global Notes</u>	<u>Registered Owner</u>	<u>Deliver To</u>	<u>Certificate No.</u>	<u>Principal Amount</u>	<u>CUSIP No.</u>	<u>ISIN No.</u>
3.30% Senior Note due December 1, 2027	Cede & Co.	The Depository Trust Company* 55 Water Street New York, New York 10041	A-1	\$500,000,000	694308 HV2	US694308 HV21
			A-2	\$500,000,000	694308 HV2	US694308 HV21
			A-3	\$109,400,000	694308 HV2	US694308 HV21
			S-1	\$40,600,000	U69430 AE3	USU69430 AE36
3.95% Senior Note due December 1, 2047	Cede & Co.	The Depository Trust Company* 55 Water Street New York, New York 10041	A-1	\$500,000,000	694308 HX8	US694308 HX86
			A-2	\$331,775,000	694308 HX8	US694308 HX86
			S-1	\$18,225,000	U69430 AF0	USU69430 AF01
Floating Rate Senior Note due November 27, 2018	Cede & Co.	The Depository Trust Company* 55 Water Street New York, New York 10041	A-1	\$488,000,000	694308 HT7	US694308 HT74
			S-1	\$12,000,000	U69430 AD5	USU69430 AD52

*The Trustee holds the global notes as custodian for The Depository Trust Company.

ACKNOWLEDGEMENT OF THE TRUSTEE

The undersigned, a duly authorized officer of The Bank of New York Mellon Trust Company, N.A., as trustee (the “Trustee”) under the Indenture, dated as of November 29, 2017, (the “Indenture”), between Pacific Gas and Electric Company, a California corporation, and the Trustee, does hereby acknowledge that the Trustee has authenticated, in the manner provided in the Indenture, the global note certificates listed in Schedule A hereto, and has delivered said certificates registered in the name as set forth on Schedule A hereto on the date hereof.

[Signature Page Follows]

Dated: November 29, 2017

**THE BANK OF NEW YORK MELLON
TRUST COMPANY, N.A., as Trustee**

By 
Name: R. Tarnas
Title: Vice President

[SIGNATURE PAGE TO ACKNOWLEDGEMENT OF THE TRUSTEE]

SCHEDULE A

PACIFIC GAS AND ELECTRIC COMPANY

<u>Name of Global Notes</u>	<u>Registered Owner</u>	<u>Deliver To</u>	<u>Certificate No.</u>	<u>Principal Amount</u>	<u>CUSIP No.</u>	<u>ISIN No.</u>
3.30% Senior Note due December 1, 2027	Cede & Co.	The Depository Trust Company* 55 Water Street New York, New York 10041	A-1	\$500,000,000	694308 HV2	US694308 HV21
			A-2	\$500,000,000	694308 HV2	US694308 HV21
			A-3	\$109,400,000	694308 HV2	US694308 HV21
			S-1	\$40,600,000	U69430 AE3	USU69430 AE36
3.95% Senior Note due December 1, 2047	Cede & Co.	The Depository Trust Company* 55 Water Street New York, New York 10041	A-1	\$500,000,000	694308 HX8	US694308 HX86
			A-2	\$331,775,000	694308 HX8	US694308 HX86
			S-1	\$18,225,000	U69430 AF0	USU69430 AF01
Floating Rate Senior Note due November 27, 2018	Cede & Co.	The Depository Trust Company* 55 Water Street New York, New York 10041	A-1	\$488,000,000	694308 HT7	US694308 HT74
			S-1	\$12,000,000	U69430 AD5	USU69430 AD52

*The Trustee holds the global notes as custodian for The Depository Trust Company.

CROSS RECEIPT

November 29, 2017

Reference is hereby made to the Purchase Agreement, dated November 27, 2017 (the "Purchase Agreement"), among Pacific Gas and Electric Company, a California corporation (the "Company"), and Barclays Capital Inc., Citigroup Global Markets Inc., J.P. Morgan Securities LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated and Morgan Stanley & Co. LLC, as representatives (collectively, the "Representatives") of the initial purchasers named in Schedules I-A, I-B and I-C thereto (the "Initial Purchasers").

The Company hereby acknowledges receipt from the Representatives of payment of (i) \$499,250,000 as full and complete payment of the purchase price for \$500,000,000 aggregate principal amount of the Company's floating rate Senior Notes due November 28, 2018 (the "2018 Notes"), (ii) \$1,139,121,000 as full and complete payment of the purchase price for \$1,150,000,000 aggregate principal amount of the Company's 3.30% Senior Notes due December 1, 2027 (the "2027 Notes") and (iii) \$838,856,500 as full and complete payment of the purchase price for \$850,000,000 aggregate principal amount of the Company's 3.95% Senior Notes due December 1, 2047 (the "2047 Notes" and, together with the 2018 Notes and the 2027 Notes, the "Notes"), in full satisfaction of the obligation of the Initial Purchasers through the Representatives to pay for the Notes, pursuant to the Purchase Agreement.


The Representatives, on behalf of the Initial Purchasers, hereby acknowledge receipt from the Company for the respective accounts of the Initial Purchasers of (i) \$500,000,000 aggregate principal amount of the 2018 Notes, (ii) \$1,150,000,000 aggregate principal amount of the 2027 Notes and (iii) \$850,000,000 aggregate principal amount of the 2047 Notes.

This Cross Receipt may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, but all such counterparts shall together constitute but one and the same instrument.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the undersigned have executed this Cross Receipt as of the date first set forth above.

Pacific Gas and Electric Company

By: 
Name: Nicholas M. Bijur
Title: Vice President and Treasurer

[Signature Page to Cross Receipt]

Barclays Capital Inc.

By: 
Name: Robert Stone
Title: Managing Director

Citigroup Global Markets Inc.

By: _____
Name: _____
Title: _____

J.P. Morgan Securities LLC

By: _____
Name: _____
Title: _____

Merrill Lynch, Pierce, Fenner & Smith Incorporated

By: _____
Name: _____
Title: _____

Morgan Stanley & Co. LLC


By: _____
Name: _____
Title: _____

[Signature Page to Cross Receipt]

Barclays Capital Inc.

By: _____
Name:
Title:

Citigroup Global Markets Inc.

By:  _____
Name: Adam D. Bordner
Title: Vice President

J.P. Morgan Securities LLC

By: _____
Name:
Title:

Merrill Lynch, Pierce, Fenner & Smith Incorporated

By: _____
Name:
Title:

Morgan Stanley & Co. LLC

By: _____
Name:
Title:

[Signature Page to Cross Receipt]

Barclays Capital Inc.

By: _____
Name:
Title:

Citigroup Global Markets Inc.

By: _____
Name:
Title:

J.P. Morgan Securities LLC

By: _____
Name: Som Bhattacharyya
Title: Executive Director

Merrill Lynch, Pierce, Fenner & Smith Incorporated

By: _____
Name:
Title:

Morgan Stanley & Co. LLC

By: _____
Name:
Title:

[Signature Page to Cross Receipt]

Barclays Capital Inc.

By: _____
Name: _____
Title: _____


Citigroup Global Markets Inc.

By: _____
Name: _____
Title: _____

J.P. Morgan Securities LLC

By: _____
Name: _____
Title: _____

Merrill Lynch, Pierce, Fenner & Smith Incorporated

By:  _____
Name: Patrick Boultinghouse
Title: Managing Director

Morgan Stanley & Co. LLC

By: _____
Name: _____
Title: _____

[Signature Page to Cross Receipt]

Barclays Capital Inc.

By: _____
Name:
Title:

Citigroup Global Markets Inc.

By: _____
Name:
Title:

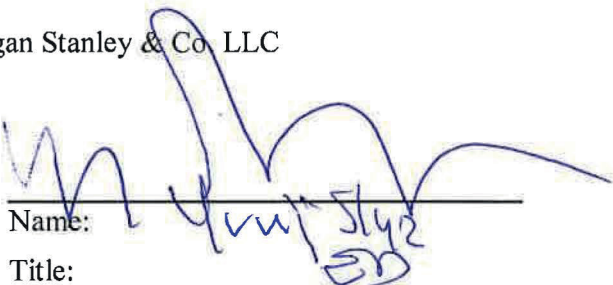
J.P. Morgan Securities LLC

By: _____
Name:
Title:

Merrill Lynch, Pierce, Fenner & Smith Incorporated

By: _____
Name:
Title:

Morgan Stanley & Co. LLC

By: 
Name:
Title:

[Signature Page to Cross Receipt]

EXHIBIT 2.8

BRIDGE COMMITMENT LETTER

JPMORGAN CHASE BANK, N.A.

383 Madison Avenue
New York, NY 10179

BANK OF AMERICA, N.A.

BofA SECURITIES, INC.

One Bryant Park
New York, NY 10036

BARCLAYS

745 Seventh Avenue
New York, NY 10019

CITIGROUP GLOBAL MARKETS INC.

388 Greenwich Street
New York, NY 10013

**GOLDMAN SACHS BANK USA
GOLDMAN SACHS LENDING PARTNERS LLC**

200 West Street
New York, NY 10282

BNP PARIBAS

787 Seventh Avenue
New York, New York 10019

**CREDIT SUISSE AG, CAYMAN ISLANDS
BRANCH**

Eleven Madison Avenue
New York, New York 10010

MORGAN STANLEY BANK, N.A.

1585 Broadway
New York, New York 10036

MUFG UNION BANK, N.A.

1221 Avenue of the Americas
New York, NY 10020

**WELLS FARGO BANK, NATIONAL
ASSOCIATION**

550 S Tryon St.
Charlotte, NC 28202

MIZUHO BANK, LTD.

1251 Avenue of the Americas
New York, NY 10020

PERSONAL AND CONFIDENTIAL

January 30, 2020

PG&E Corporation
Pacific Gas and Electric Company
77 Beale Street
P.O. Box 77000
San Francisco, California 94177
Attention: Nicholas M. Bijur

**Pacific Gas and Electric Company
Amendment No. 3 to Commitment Letter**

Ladies and Gentlemen:

Reference is made to that certain Commitment Letter, dated as of October 4, 2019 (together with the annexes thereto, as supplemented by that certain Joinder Letter dated as of October 28, 2019 (the “*First Joinder*”), that certain Amendment No. 1 to Commitment Letter dated as of November 18, 2019, that certain Joinder Letter dated as of December 2, 2019 (the “*Second Joinder*”), that certain Amendment No. 2 to Commitment Letter dated as of December 20, 2019 and as further amended from

time to time in accordance with the terms thereof, the “**Commitment Letter**”), between PG&E Corporation, a California corporation (or any domestic entity formed to hold all of the assets of PG&E Corporation upon emergence from bankruptcy) (“**PG&E**”), Pacific Gas and Electric Company, a California corporation (the “**Utility**”) (together with any domestic entity formed to hold all of the assets of the Utility upon emergence from bankruptcy, the “**Borrower**” and together with PG&E, the “**Debtors**” or “**you**”), JPMorgan Chase Bank, N.A. (“**JPMorgan**”), Bank of America, N.A. (“**BANA**”), BofA Securities, Inc. (or any of its designated affiliates, “**BofA**”, and together with BANA, “**Bank of America**”), Barclays Bank PLC (“**Barclays**”), Citigroup Global Markets Inc. on behalf of Citi (as defined below), Goldman Sachs Bank USA (“**GS Bank**”) and Goldman Sachs Lending Partners LLC (“**GS LP**”, and together with GS Bank, “**Goldman Sachs**”) (JPMorgan, Bank of America, Barclays, Citi and Goldman Sachs, collectively, the “**Initial Commitment Parties**”) and BNP Paribas (“**BNP**”), Credit Suisse AG, Cayman Islands Branch (“**Credit Suisse**”), Morgan Stanley Bank, N.A. (“**Morgan Stanley**”), MUFG Union Bank, N.A. (“**MUFG**”), Wells Fargo Bank, National Association (“**Wells Fargo**”) and Mizuho Bank, Ltd. (“**Mizuho**”, collectively with BNP, Credit Suisse, Morgan Stanley, MUFG, Wells Fargo and the Initial Commitment Parties, the “**Commitment Parties**”, “**we**” or “**us**”), regarding a senior secured bridge facility for the Borrower defined therein as the Facility and the related transactions described therein. “**Citi**” shall mean Citigroup Global Markets Inc., Citibank N.A., Citicorp USA, Inc., Citicorp North America, Inc. and/or any of their affiliates as any of them shall determine to be appropriate to provide the services contemplated herein. Capitalized terms used but not defined herein are used with the meanings assigned to them in the Commitment Letter.

Each party to this Amendment No. 3 to Commitment Letter (this “**Amendment**”) hereby agrees that the Commitment Letter is hereby amended to delete the stricken text (indicated textually in the same manner as the following example: ~~stricken text~~) and to add the double-underlined text (indicated textually in the same manner as the following example: double-underlined text) as set forth in Schedule I hereto. The Commitment Letter shall be deemed to be replaced in its entirety by the Commitment Letter modified to reflect the terms set forth in Schedule I hereto, and each person party hereto as a Commitment Party shall be the sole Commitment Parties under the Commitment Letter on the date hereof after giving effect to this Amendment, and shall have and hereby reaffirm their commitments under the Commitment Letter set forth in Schedule II to the Commitment Letter, subject to the terms and conditions set forth in the Commitment Letter as amended by this Amendment.

Each party to this Amendment also hereby agrees that the Fee Schedule of the First Joinder is each hereby amended to delete the stricken text (indicated textually in the same manner as the following example: ~~stricken text~~) and to add the double-underlined text (indicated textually in the same manner as the following example: double-underlined text) as set forth in Schedule II hereto.

Each party to this Amendment also hereby agrees that the Fee Schedule of the Second Joinder is each hereby amended to delete the stricken text (indicated textually in the same manner as the following example: ~~stricken text~~) and to add the double-underlined text (indicated textually in the same manner as the following example: double-underlined text) as set forth in Schedule III hereto.

Each party hereto agrees to maintain the confidentiality of this Amendment and the terms hereof, subject to the confidentiality provisions contained in the Commitment Letter (with references to Fee Letter being deemed to include Schedules II and III hereto (such schedules, the “**Fee Schedules**”). Notwithstanding anything to the contrary herein, any disclosure of the Fee Schedules to obtain Bankruptcy Court approval shall only be made via a filing under seal and, to the extent required, by providing an unredacted copy thereof directly to the Bankruptcy Court, the Office of the United States Trustee and advisors to the Official Committee of Unsecured Creditors, the Official Committee of Tort Claimants and any other official committee established pursuant to Section 1102 of the Bankruptcy Code on a

confidential and professionals' eyes only basis; *provided, however*, that you shall be permitted to publicly disclose the fees payable under the Fee Schedules, solely on an aggregate basis combined with all other fees payable by you in connection with the financing for which you are seeking the approval of the Bankruptcy Court.

The provisions of the third paragraph of Section 9 of the Commitment Letter are incorporated herein, mutatis mutandis, as if the references to the Commitment Letter were to this Amendment. Each of the parties hereto (for itself and its affiliates) (a) waives, to the fullest extent it may legally and effectively do so, any objection that it may now or hereafter have to the laying of venue of any suit, action or proceeding arising out of or relating to the Commitment Letter, this Amendment, or the transactions contemplated thereby or hereby, in any such New York State court or in any such Federal court and (b) waives, to the fullest extent permitted by law, the defense of an inconvenient forum to the maintenance of such action or proceeding in any such court.

Except as specifically amended by this Amendment, the Commitment Letter shall remain in full force and effect. This Amendment shall be construed in connection with and form part of the Commitment Letter, and any reference to the Commitment Letter shall be deemed to be a reference to the Commitment Letter as amended by this Amendment. Neither this Amendment nor the Commitment Letter (including the attachments hereto and thereto) may be amended or any term or provision hereof or thereof waived or modified except by an instrument in writing signed by each of the parties hereto. This Amendment may be executed in any number of counterparts, each of which when executed will be an original, and all of which, when taken together, will constitute one agreement. Delivery of an executed counterpart of a signature page to this Amendment by telecopier, facsimile or other electronic transmission (e.g., "pdf" or "tif") shall be effective as delivery of a manually executed counterpart thereof.

[Remainder of page intentionally left blank]

We are pleased to have been given the opportunity to assist you in connection with the financing for the Transactions.

Very truly yours,

JPMORGAN CHASE BANK, N.A.

By: 

Name:

Title:

Sandeep S. Parihar
Executive Director

[Signature Page to Amendment No. 3 to Commitment Letter (Utility)]

BofA SECURITIES, INC.

By: 
Name: Sanjay Rijhwani
Title: Managing Director

BANK OF AMERICA, N.A.

By: 
Name: Sanjay Rijhwani
Title: Managing Director

BARCLAYS BANK PLC

By: 

Name: Sydney G. Dennis

Title: Director

[Signature Page to Amendment No. 3 to Commitment Letter (Utility)]

CITIGROUP GLOBAL MARKETS INC.

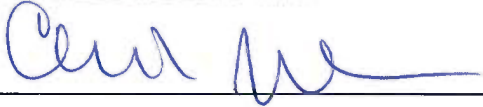
By: 

Name: Susan M. Olsen

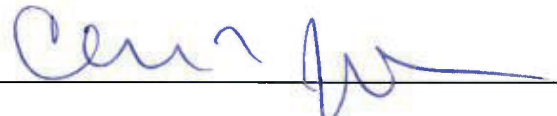
Title: Managing Director

[Signature Page to Amendment No. 3 to Commitment Letter (Utility)]

GOLDMAN SACHS BANK USA

By: 
Name: _____
Title: Charles D. Johnston
Authorized Signatory

GOLDMAN SACHS LENDING PARTNERS LLC

By: 
Name: _____
Title: Charles D. Johnston
Authorized Signatory

[Signature Page to Amendment No. 3 to Commitment Letter (Utility)]

BNP PARIBAS

By: 

Name:

CHRISTOPHER SKED

Title:

Managing Director

By: 

Name:

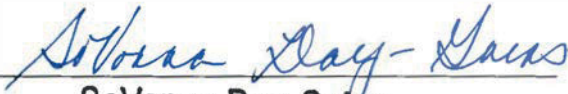
Julien Pecoud-Bouvet

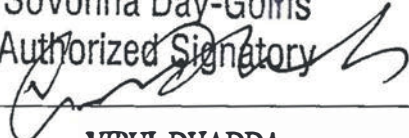
Title:

Director

[Signature Page to Amendment No. 3 to Commitment Letter (Utility)]


**CREDIT SUISSE AG, CAYMAN ISLANDS
BRANCH**

By: 
Name: SoVonna Day-Goins
Title: Authorized Signatory

By: 
Name: VIPUL DHADDA
Title: AUTHORIZED SIGNATORY

[Signature Page to Amendment No. 3 to Commitment Letter (Utility)]

MORGAN STANLEY BANK, N.A.

By: 
Name: Mrinalini MacDonough
Title: Authorized Signatory

[Signature Page to Amendment No. 3 to Commitment Letter (Utility)]

MUFG UNION BANK, N.A.

By: _____

Name: _____

Title: _____



Nietzsche Rodricks
Managing Director

[Signature Page to Amendment No. 3 to Commitment Letter (Utility)]

**WELLS FARGO BANK, NATIONAL
ASSOCIATION**


By: 

Name: Gregory R. Gredvig

Title: Director

[Signature Page to Amendment No. 3 to Commitment Letter (Utility)]


MIZUHO BANK, LTD.

By: 
Name: Raymond Ventura
Title: Managing Director

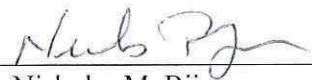
[Signature Page to Amendment No. 3 to Commitment Letter (Utility)]

ACCEPTED AND AGREED AS OF
THE DATE FIRST WRITTEN ABOVE:

PG&E CORPORATION

By: 
Name: Nicholas M. Bijur
Title: Vice President and Treasurer

PACIFIC GAS AND ELECTRIC COMPANY

By: 
Name: Nicholas M. Bijur
Title: Vice President and Treasurer

[Signature Page to Amendment No. 3 to Commitment Letter (Utility)]

SCHEDULE I

[Attached]

“Commitment Parties” as provided in Section 3 hereof (including those entities listed in Schedule I attached hereto) are referred to herein, collectively, as the “**Commitment Parties**,” “**we**” or “**us**.”

You have informed us that, in connection with the consummation of the transactions contemplated by the Plan, the Borrower intends to (a) enter into a new revolving credit facility in an aggregate committed amount of \$3,500 million (the “**Revolving Credit Facility**”) and (b) issue senior secured notes pursuant to a registered public offering or Rule 144A or other private placement (the “**Notes**”). In connection therewith, the Borrower desires to enter into a ~~\$27,350~~5,825 million senior secured bridge loan facility (the “**Facility**”) having the terms and subject to the conditions set forth herein and in the Annexes hereto, to be available in the event that the Notes are not issued on or prior to the Closing Date (as defined in Annex A) for any reason.

The transactions described in the preceding paragraphs are collectively referred to herein as the “**Transactions**.”

For purposes of this Commitment Letter, “**Citi**” shall mean Citigroup Global Markets Inc., Citibank N.A., Citicorp USA, Inc., Citicorp North America, Inc. and/or any of their affiliates as any of them shall determine to be appropriate to provide the services contemplated herein.

1. **Commitments; Titles and Roles.**

(a) (i) Each of JPMorgan, BofA, Barclays, Citi and GS Bank is pleased to confirm its agreement to act, and you hereby appoint each of JPMorgan, BofA, Barclays, Citi and GS Bank to act, as a joint lead arranger and joint bookrunner (in such capacities, the “**Arrangers**”) and, except in the case of JPMorgan, co-syndication agent in connection with the Facility and (ii) each other Commitment Party accepts, on its own behalf or on behalf of its designated affiliate, the title(s) agreed to by the Borrower in writing and set forth adjacent to its name on Schedule I attached hereto under the heading “Title(s)”; (b) JPMorgan is pleased to confirm its agreement to act, and you hereby appoint JPMorgan to act, as administrative agent and collateral agent (the “**Administrative Agent**”) for the Facility; and (c) each of JPMorgan, BANA, Barclays, Citi, GSLP and GS Bank (in such capacity, the “**Initial Lenders**”) and each other Commitment Party is pleased to commit, and hereby commits, on a several and not joint basis, to provide the Borrower a portion of the aggregate principal amount of the Facility equal to the principal amount set forth adjacent to its name on Schedule II attached hereto under the heading “Commitment” on the terms contained in this Commitment Letter and subject to the conditions expressly set forth in Annex B hereto; *provided* that the amount of the Facility shall be automatically reduced as provided under “Mandatory Prepayments and Commitment Reductions” in Annex A hereto with any such reduction to be applied pro rata among the Initial Lenders. It is further agreed that JPMorgan will appear on the top left (and the Arrangers, other than JPMorgan, will appear in alphabetical order immediately to the right thereof) of the cover page of any marketing materials for the Facility and will hold the roles and responsibilities conventionally understood to be associated with such name placement. Our fees for our commitment and for services related to the Facility are set forth in a separate fee letter (as amended, restated or otherwise modified from time to time in accordance with the terms thereof, the “**Fee Letter**”) entered into by you and the Commitment Parties on the date hereof. It is agreed that no other agents, co-agents, arrangers, co-arrangers or bookrunners will be appointed and no other titles will be awarded in connection with the Facility, and no compensation will be paid in order to obtain such person’s commitment to participate in the Facility (other than the compensation expressly contemplated by this Commitment Letter and the Fee Letter) in connection with the Facility, unless the Arrangers and you shall so agree; *provided, however*, that you may award agent (other than administrative agent and co-syndication agent) and similar titles to any additional Commitment Party that becomes a Commitment Party hereunder in accordance with the

addresses above shall be effective service of process against such party for any suit, action or proceeding brought in any such court. This Commitment Letter and the Fee Letter and any claim, controversy or dispute arising hereunder or thereunder will be governed by and construed in accordance with the laws of the State of New York without regard to principles of conflicts of laws.

10. **PATRIOT Act Notification.**

The Commitment Parties hereby notify the Borrower that pursuant to the requirements of the USA PATRIOT Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)) (the “**Patriot Act**”) and the requirements of 31 C.F.R. § 1010.230 (the “**Beneficial Ownership Regulation**”) the Commitment Parties and each Lender may be required to obtain, verify and record information that identifies the Borrower, which information includes the name and address of the Borrower and other information that will allow the Commitment Parties and each Lender to identify the Borrower in accordance with the Patriot Act and the Beneficial Ownership Regulation. This notice is given in accordance with the requirements of the Patriot Act and is effective for the Commitment Parties and each Lender.

11. **Acceptance and Termination.**

Each of the parties hereto agrees that this Commitment Letter is a binding and enforceable agreement with respect to subject matter contained herein, including an agreement to negotiate in good faith the Facility Documentation by the parties hereto in a manner consistent with this Commitment Letter, it being acknowledged and agreed that the commitments provided hereunder by the Commitment Parties are subject to the conditions expressly set forth in Annex B hereto.

This Commitment Letter may be executed in any number of counterparts, each of which when executed will be an original, and all of which, when taken together, will constitute one agreement. Delivery of an executed counterpart of a signature page of this Commitment Letter by facsimile transmission or other electronic transmission (e.g., “pdf” or “tif”) will be effective as delivery of a manually executed counterpart hereof. This Commitment Letter and the Fee Letter are the only agreements that have been entered into among the parties hereto with respect to the Facility and set forth the entire understanding of the parties with respect thereto and supersede any prior written or oral agreements among the parties hereto with respect to the Facility.

The Commitment Parties’ commitments and agreements hereunder will terminate upon the first to occur of (i) the execution and delivery of the Facility Documentation by each of the parties thereto, (ii) the Effective Date of the Plan without using the loans under the Facility, (iii) 11:59 p.m., New York City time, on (A) June 30, 2020, if the Confirmation Order has not been entered prior to such time or (B) August 29, 2020, if the Closing Date has not occurred prior to such time, (iv)(A) the Plan, [the Noteholder RSA \(as defined below\)](#) or the Approval Order is amended or modified or any condition contained therein waived, in a manner that is adverse to the Commitment Parties in their capacities as such, in either case without the consent of the Administrative Agent and the Commitment Parties holding 66 2/3% of the commitments hereunder in respect of the Facility (the “**Required Commitment Parties**”) (such consent not to be unreasonably withheld, conditioned or delayed; *provided* that modifications to the Plan solely as a result of an increase in roll-over, “take-back” or reinstatement of any existing debt of the Debtors shall be deemed not to be adverse to the Commitment Parties for the purposes of this clause (A)), (B) any Plan Supplement or any Plan Document (each as defined in the Plan) that is adverse to the interests of the Commitment Parties in their capacities as such is filed or finalized without the consent of the Required Commitment Parties (such consent not to be unreasonably withheld, conditioned or delayed), (v) the Chapter 11 Case with respect to any Debtor is dismissed or converted to a proceeding under chapter 7 of the Bankruptcy Code, (vi) a trustee or examiner with enlarged powers (having powers beyond those set forth in section 1106(a)(3) and 1106(a)(4) of the Bankruptcy Code) is appointed with

respect to any of the Debtors, (vii) there is in effect an order of a governmental authority of competent jurisdiction permanently restraining, enjoining or otherwise prohibiting the consummation of any of the transactions contemplated by the Plan, or any law, statute, rule, regulation or ordinance is adopted that makes consummation of the transactions contemplated by the Plan illegal or otherwise prohibited; (viii) the Bankruptcy Court shall not have entered an order approving the relief requested in the motion filed with the Bankruptcy Court authorizing the Borrower's entry into and performance under this Commitment Letter, the Fee Letter and any related engagement letter (the "**Approval Order**"), in form and substance reasonably satisfactory to the Commitment Parties, on or before ~~January 31~~February 28, 2020; (ix) the Debtors' aggregate liability with respect to Fire Claims (as defined in the Plan) is determined (whether (A) by the Bankruptcy Court (or the District Court to which the reference has been partially withdrawn for estimation purposes), (B) pursuant to an agreement between the Debtors and the holders of Fire Claims that is subject to an order of the Bankruptcy Court approving such agreement, or (C) through a combination thereof) to exceed \$25.5 billion (the "**Fire Claims Cap**"); (x) (A) the occurrence of one or more wildfires within PG&E's service area after the Petition Date (as defined in the Plan) and prior to January 1, 2020 that is asserted by any person to arise out of the Debtors' activities and that destroys or damages more than 500 dwellings or commercial structures ("**Structures**"); *provided, however*, that any notice of termination under this clause (x)(A) must be given on or before the entry of the Approval Order, or (B) the occurrence of one or more wildfires on or after January 1, 2020 destroying or damaging at least 500 Structures within PG&E's service area at a time when the portion of PG&E's system at the location of such wildfire was not successfully de-energized; (xi) the Debtors shall not have received at least \$12,000 million of equity commitments by December 24, 2019 on terms reasonably satisfactory to the Commitment Parties; (xii) since June 30, 2019, a Material Adverse Effect shall have occurred; (xiii) the Debtors have failed to perform any of their obligations set forth in this Commitment Letter, which failure to perform (A) would give rise to the failure of the condition set forth in paragraph 1(a) or 1(d) on Annex B hereto and (B) is incapable of being cured or, if capable of being cured by June 30, 2020, the Debtors have not cured within 10 calendar days following receipt by the Debtors of written notice of such failure to perform from the Commitment Parties holding a majority of the commitments in respect of the Facility, (xiv) if at any time after the first day of the Confirmation Hearing (as defined in the Plan), either (A) asserted Administrative Expense Claims (as defined in the Plan) exceed \$250 million (excluding all ordinary course Administrative Expense Claims, Professional Fee Claims, Disallowed Administrative Expense Claims and the portion of an Administrative Expense Claim that is covered by insurance (in each case, as defined in the Plan) and including for the avoidance of doubt, any such expenses or claims with respect to the Facility (collectively, the "**Excluded Administrative Expense Claims**")) or (B) the Debtors have reserved for and/or paid more than \$250 million in the aggregate for Administrative Expense Claims, excluding the Excluded Administrative Expense Claims, (xv) on or prior to June 30, 2020, the Borrower shall not have received from the California Public Utilities Commission (the "**CPUC**") all necessary approvals, authorizations and final orders to implement the Plan, and to participate in the Go-Forward Wildfire Fund (as defined in the Plan), including (A) provisions pertaining to authorized return on equity and regulated capital structure, (B) a disposition of proposals for certain potential changes to PG&E's corporate structure and authorizations for the Utility to operate as a utility, (C) resolution of claims for monetary fines or penalties under the California Public Utilities Code for conduct prior to the Petition Date and (D) approval (or exemption from approval) of the financing structure and the securities to be issued under the Plan, (xvi) if at any time the Bankruptcy Court determines that the Debtors are insolvent~~and~~, (xvii) the Bankruptcy Court has entered a final and non-appealable order to authorize, or the Plan, any Plan Supplement or any Plan Document is amended, modified or changed to include, in each case without the consent of the Required Commitment Parties~~to include~~, a process for transferring the license and/or operating assets of the Utility to the State of California or a third party (a "Transfer") or PG&E effects a Transfer other than pursuant to the Plan~~;~~, (xviii) the CPUC has revoked or terminated the Utility's Certificate of Public Convenience and Necessity, (xix) the issuance of a preliminary or permanent injunction by a court of competent jurisdiction (including, without limitation, an order of the Bankruptcy

Court which has not been stayed) declaring the Plan or any material portion thereof (in each case, to the extent it relates to the terms hereof) to be unenforceable or otherwise restricting the consummation of any such material portion of the Plan, and such ruling, judgment, or order has not been stayed, reversed, or vacated, within fifteen (15) calendar days after issuance; (xx) the Bankruptcy Court shall not have entered an order (the “**Noteholder RSA Approval Order**”) approving the Borrower’s entry into and performance under the Restructuring Support Agreement, dated as of January 22, 2020 (the “**Noteholder RSA**”), among the Debtors, the Consenting Noteholders and the Shareholder Proponents (each as defined therein), in form and substance reasonably satisfactory to the Commitment Parties, on or before February 28, 2020; and (xxi) the necessary consents from the Backstop Parties (as defined in the BCLs) in order to permit the Plan to be amended to incorporate the terms of the Noteholder RSA are not obtained on or before February 28, 2020 (the earliest date in clauses (ii) through (~~xvii~~xxi)) being the “**Commitment Termination Date**”); *provided* that the termination of any commitment pursuant to this sentence does not prejudice your rights and remedies in respect of any breach of this Commitment Letter. You will have the right to terminate this Commitment Letter in the event that the Debtor’s exclusive periods to file and solicit acceptances of a plan of reorganization are terminated or modified.

Please confirm that the foregoing is in accordance with your understanding by signing and returning to JPMorgan an executed copy of this Commitment Letter, together, if not previously executed and delivered, with an executed copy of the Fee Letter, on or before 11:59 p.m., New York City time, on October 11, 2019, whereupon this Commitment Letter and the Fee Letter will become binding agreements between us. This offer will terminate on such date if this Commitment Letter and the Fee Letter have not been signed and returned as described in the preceding sentence. We look forward to working with you on this transaction.

[Remainder of page intentionally left blank]

SCHEDULE II

[Attached]

SCHEDULE III

[Attached]

EXHIBIT 2.9

FEE COMPUTATION

EXHIBIT 2.9

PACIFIC GAS AND ELECTRIC COMPANY

FEE COMPUTATION

Type	Amount	Rate (per \$000)	Fee
<hr/>			
Total Debt and Preferred	\$16,963,000,000		
Step I (Up to \$1 Million)	\$1,000,000	\$2.00	\$2,000
Step II (Over \$1 Million)	\$9,000,000	\$1.00	\$9,000
Step III (Over \$10 Million)	\$16,953,000,000	\$0.50	<u>\$8,476,500</u>
Total Fee			\$8,487,500
Exchanged Debt	\$11,850,000,000		
Incremental Debt	\$11,925,000,000		
Short-Term Debt Request	\$6,000,000,000		
Total Debt Request	\$29,775,000,000		
Prior Short-Term Authorization	(\$4,000,000,000)		
Refinancing Long-Term Debt	(\$8,812,000,000)		
Debt for Fee Calculation	\$16,963,000,000		

EXHIBIT 1

COMPLIANCE FILING IN SAFETY CULTURE OII (JULY 3, 2019)

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Investigation on the
Commission's Own Motion to Determine
Whether Pacific Gas and Electric Company
and PG&E Corporation's Organizational
Culture and Governance Prioritize Safety.

Investigation 15-08-019
(Filed August 27, 2015)

**COMPLIANCE FILING OF PACIFIC GAS AND
ELECTRIC COMPANY (U 39 M) AND PG&E
CORPORATION PURSUANT TO D.19-06-008**

HENRY WEISSMANN
JAMES C. RUTTEN
GIOVANNI SAARMAN GONZÁLEZ

Munger, Tolles & Olson LLP
350 South Grand Avenue
Los Angeles, California 90071-3426
Telephone: (213) 683-9150
Facsimile: (213) 683-5150
E-Mail: henry.weissmann@mto.com

JANET C. LODUCA
WILLIAM V. MANHEIM

Pacific Gas and Electric Company
77 Beale Street, B30A
San Francisco, California 94105
Telephone: (415) 973-6628
Facsimile: (415) 973-5520
E-Mail: William.Manheim@pge.com

Attorneys for
PACIFIC GAS AND ELECTRIC COMPANY
and PG&E CORPORATION

Dated: July 3, 2019

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**BEFORE THE PUBLIC UTILITIES COMMISSION
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Order Instituting Investigation on the
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Investigation 15-08-019
(Filed August 27, 2015)

**COMPLIANCE FILING OF PACIFIC GAS AND
ELECTRIC COMPANY (U 39 M) AND PG&E
CORPORATION PURSUANT TO D.19-06-008**

Pursuant to Ordering Paragraph 1 of D.19-06-008, Pacific Gas and Electric Company (U 39 M) and PG&E Corporation (collectively, "PG&E") respectfully submit this compliance filing providing information for each member of their respective Boards of Directors.

As noted in its comments on ALJ Allen's May 7, 2019 Proposed Decision, PG&E has taken the unprecedented step of turning over more than 80% of its Boards of Directors, a concrete element of PG&E's commitment to substantially improving its safety operations and safety culture.¹ The new Boards understand that that commitment starts at the top, and they are completely dedicated to identifying and overseeing the necessary changes at PG&E. Indeed, during the Board refreshment process, the new members of the Boards were briefed extensively about PG&E's safety priorities and the commitment that service on the PG&E Boards would entail; they joined the PG&E Boards fully understanding the critical nature of this mission and with complete dedication to it. The Boards understand that safe utility operations and a strong safety culture are critical for PG&E's responsibilities to its customers and the public as well as its long-term financial success.

¹ See Comments of Pacific Gas and Electric Company (U 39 M) and PG&E Corporation on ALJ Allen's May 7, 2019 Proposed Decision at 1 (May 28, 2019).

Since the new Boards were seated a short time ago, the Board members have dedicated substantial time, care, and attention to their role overseeing and guiding PG&E in resolving the many complex and critical issues it faces. For instance:

- Board members have participated in over 30 formal Board and Board committee meetings, in addition to many additional informal calls and meetings;
- New chairs have been appointed for all Board committees;
- The Boards have held weekly calls and other meetings with officers and other leaders to accelerate the Boards' learning and focus on key issues such as safety, preparing for the wildfire season, and PG&E's Chapter 11 proceedings;
- The Boards have met with the federal monitor to hear his perspective on PG&E's progress in safety operations and changing its safety culture; and
- Individual Board members have been on field visits and tours and are planning additional field visits in the coming weeks and months.²

Given the challenges faced by PG&E and the fact that 80% of the Board members were seated in April or May of 2019, the new Boards' time commitment surpasses the norm for public companies, while remaining consistent in these circumstances with the Boards' role in overseeing the senior management team (including the PG&E Corporation Chief Executive Officer and President) and holding management accountable for day-to-day operations (including safety performance). A 2016 survey of public company governance by the National Association of Corporate Directors found that the average director spent approximately 20.4

² As noted in PG&E's comments on ALJ Allen's May 7, 2019 Proposed Decision, each Board member has committed to at least three site visits per year, and members of the Safety and Nuclear Oversight Committees will conduct additional site visits. *See id.* at 2.

hours per month serving on the board of a public company.³ Since PG&E's Board refreshment process, the directors typically have spent substantially more than that amount of time in performing their duties, consistent with their dedication to quickly learning about PG&E so they can respond to the many challenges facing the companies. Such time commitment could reasonably be expected to decrease as the Board members become more familiar with PG&E and as these challenges are addressed.

Best practices in corporate governance, as well as guidelines and rules applicable to publicly traded companies such as PG&E Corporation, require a diverse board of directors with expertise across a range of areas.⁴ PG&E's new Boards possess this diversity of expertise,

³ See Nat'l Ass'n of Corp. Directors, *2016-2017 NACD Public Company Governance Survey: Executive Summary* at 2 (Nov. 29, 2016), available at <https://www.nacdonline.org/files/2016%E2%80%932017%20NACD%20Public%20Company%20Governance%20Survey%20Executive%20Summary.pdf>.

⁴ See, e.g., Cal. Corp. Code § 301.3 (mandating minimum gender diversity requirements for public company boards); BlackRock, *Proxy Voting Guidelines for U.S. Securities* at 4 (Jan. 2019) (“[W]e expect boards to be comprised of a diverse selection of individuals who bring their personal and professional experiences to bear in order to create a constructive debate of competing views and opinions in the boardroom. We recognize that diversity has multiple dimensions. In identifying potential candidates, boards should take into consideration the full breadth of diversity including personal factors, such as gender, ethnicity, and age; as well as professional characteristics, such as a director’s industry, area of expertise, and geographic location.”); California Public Employees’ Retirement System, *Governance & Sustainability Principles* at 16 (June 18, 2018) (“The board should facilitate a process that ensures a thorough understanding of the diverse characteristics necessary to effectively oversee management’s execution of a long-term business strategy. Board diversity should be thought of in terms of skill sets, gender, age, nationality, race, sexual orientation, gender identity, and historically under-represented groups. Consideration should go beyond the traditional notion of diversity to include a more broad range of experience, thoughts, perspectives, and competencies to help enable effective board leadership.”); California State Teachers’ Retirement System, *Corporate Governance Principles* at 5 (Nov. 7, 2018) (“The board should be composed of diverse individuals with the skills, education, experiences, expertise and personal qualities that are appropriate to the company’s current and long-term business needs. This diversity is critical in order for the board to properly oversee management, business strategy and risk mitigation. The board should establish a format to disclose the various skills, experience and backgrounds of board members and how those attributes enhance the long-term strategy of the company. The

including in the areas of safety, utility operations, utility regulation, finance, restructuring, accounting, and government, to name a few.⁵ With respect to safety experience in particular, such experience of course involves more than just a title with “safety” in it—it is multi-dimensional, encompassing employee safety, asset management, public safety, process safety, cyber-security, safety culture, enterprise risk management, and compliance. When it comes to safety experience, individual members of PG&E’s Boards possess deep technical and operational expertise related to gas pipeline safety, electric transmission and distribution safety, electric generation safety, nuclear safety, and occupational safety; expertise related to physical asset security and cyber threats; expertise related to pipeline safety management systems, enterprise risk management, and improving safety culture; and expertise related to procedures and

skills and experience needed include, but are not limited to, financial and/or accounting, industry expertise, business management, governance, customer service, leadership, risk management, including climate risk management and cyber-risk management, and strategic planning.”); Institutional Shareholder Services, *United States Proxy Voting Guidelines* at 9 (Dec. 6, 2018) (“Boards should be of a size appropriate to accommodate diversity, expertise, and independence, while ensuring active and collaborative participation by all members. Boards should be sufficiently diverse to ensure consideration of a wide range of perspectives.”); NYSE, Inc., Listed Company Manual 303A.07(a) (“*Commentary*. Each member of the audit committee must be financially literate, . . . [and] at least one member of the audit committee must have accounting or related financial management expertise”); PG&E Corporation Board of Directors, *Corporate Governance Guidelines* (Dec. 20, 2017) (“The Board’s membership is composed of qualified, dedicated, ethical, and highly regarded individuals who have experience relevant to the Corporation’s operations and understand the complexities of the Corporation’s business environment. The Board seeks to include a diversity of backgrounds, perspectives, and skills among its members.”); Vanguard, *Vanguard 2019 Investment Stewardship, Semiannual Engagement Update* at 2 (2019) (“An effective board should be independent and reflect both diversity of personal characteristics (such as gender, race, and ethnicity) and diversity of skill, experience, and opinion. We believe that diverse boards make better decisions, which can set in motion a virtuous circle that allows a company to innovate, seek out new customers, or enter new markets. If a company’s board is capable, diverse, and experienced, good results are more likely to follow.”); *see also* Attachment B (appending some of these materials).

⁵ *See* PG&E Corporation & Pacific Gas and Electric Company, 2019 Joint Proxy Statement at 19–20 (May 17, 2019) (appended in Attachment B).

protocols for safeguarding individuals and property in various threat contexts and public emergencies. The composition of the new Boards, as a whole, satisfies NorthStar Consulting Group's ("NorthStar") recommendation III-1 in the category of Governance and Strategy to "[a]dd Independent Directors to the Board who have experience with safety"; although NorthStar did not define "experience with safety," PG&E has added independent directors who possess such experience under any reasonable definition of the term.⁶

This compliance filing first discusses broadly the Boards' collective expertise and experience in the specific areas identified by the Commission in D.19-06-008. Attachment A then provides further detail with information specific to each member of PG&E's Boards. The information provided is accurate to the best knowledge and belief of the individual members of the PG&E Boards, recognizing that, in some instances, there are limited paper and electronic records of directors' past employment.

A. Safety-Specific Education and Training

D.19-06-008 requests information regarding "[a]ny safety-specific education and training received, including any education or training relating to corporate safety culture or safety management programs, with dates, provider and any certifications." As discussed below and in Attachment A, individual members of the PG&E Boards have completed a wide variety of safety-specific education and training throughout their careers (in addition to specific training

⁶ NorthStar's recommendation III-1 in the category of Governance and Strategy also included a recommendation to "[a]dd safety to the list of qualifications used in selecting directors." PG&E implemented this recommendation by explicitly adding safety to its "director skills matrix," as reflected in PG&E's 2018 and 2019 joint proxy statements. NorthStar subsequently noted this as part of its finding that its recommendation III-1 "has been implemented." (E-Mail Ruling Distributing NorthStar Report (Apr. 3, 2019), Attachment: Assessment of Pacific Gas and Electric Corporation and Pacific Gas and Electric Company's Safety Culture, First Update, NorthStar Consulting Group at III-55 (Mar. 29, 2019).)

they received about safety from PG&E since joining the Boards). Individual Board members' independent, non-PG&E training includes safety trainings related to hydroelectric assets, liquefied natural gas facilities, and pipelines; formal engineering coursework and research regarding the safety of nuclear reactors; behavioral-based safety programs and trainings at other public utilities; Top Secret briefings and trainings on cyber-security and physical and critical infrastructure security; and other trainings by the United States government on guidelines and procedures for evacuating individuals, and on protocols for protecting property in various threat contexts, including natural disasters, cyber-threats, and terrorist threats. The following are some examples:

- Nora Mead Brownell, the Chair of the PG&E Corporation Board, has served as a Commissioner of the Federal Energy Regulatory Commission ("FERC"), and Kristine Schmidt has served as a FERC Commissioner Advisor. While at FERC, both Ms. Brownell and Ms. Schmidt received training in safety issues pertaining to hydroelectric assets, liquefied natural gas facilities, cyber-security, and pipelines. Both Ms. Brownell and Ms. Schmidt also received Top Secret briefings on cyber-security and physical and critical infrastructure security, and participated in joint meetings with the Nuclear Regulatory Commission on the security of nuclear facilities in the United States. In 1998, Ms. Brownell also completed an academic course on utility regulation, including safety aspects, at the Institute of Public Utilities at Michigan State University. And, in her

positions at other utilities, Ms. Schmidt has completed numerous annual and other employee safety trainings.⁷

- Jeffrey Bleich, the new Chair of the Pacific Gas and Electric Company Board, served as the United States Ambassador to Australia from 2009 to 2013, and in that role, he received extensive safety trainings on natural disasters, violent assaults, cyber-threats, and other scenarios and participated in joint exercises on safety preparedness with U.S.-based companies. He also received safety training in high threat environments when he served as Senior Advisor to the Director of National Intelligence from 2014 to 2016 and as Special Counsel to the President of the United States from 2008 to 2009. He also helped develop protocols for—and participated in—safety trainings for multiple college campuses as a member of the California State University Board from 2004 to 2009 (including as vice chair from 2006 to 2008 and chair from 2008 to 2009). He has participated in and conducted multiple safety trainings in cyber-security, a critical safety area for a major utility like Pacific Gas and Electric Company.⁸
- Frederick Buckman received a Ph.D. in Nuclear Engineering from the Massachusetts Institute of Technology (“MIT”). At MIT, he studied nuclear reactor safety and his thesis involved the study of reactor safety in boiling water reactors. He also has received numerous safety briefings throughout his professional career working at, and overseeing, nuclear generating facilities.⁹

⁷ See Attachment A at pp. A-7 – A-9 (information for Ms. Brownell) and pp. A-35 – A-36 (information for Ms. Schmidt).

⁸ See Attachment A at pp. A-2.

⁹ See Attachment A at pp. A-13.

- Cheryl Campbell, during her career at Xcel Energy from 2004 to 2018, completed a number of behavioral-based safety programs and trainings. These included such topics as developing safe workplace practices and behaviors, safety leadership, safety culture, identifying hazards, and behavioral safety in general. Ms. Campbell also participated in annual working foreperson conferences for linepersons and fitters where a significant portion of the agendas related to safety, including identifying hazards, understanding risks, changing behaviors, and communicating safety concerns co-workers who are not following procedures. Ms. Campbell also regularly interacted with safety speakers at these conferences, including individuals who had suffered serious injuries from safety incidents in the utility industry.¹⁰
- William Johnson completed the Reactor Technology Course for Utility Executives at MIT in 2005, which is a three-week intensive course for nuclear executives without a background in nuclear technology that covers critical safety functions in nuclear operations, included training on nuclear safety and cultivating a strong safety culture. He also has received numerous other trainings on workplace safety, nuclear safety, safety culture, OSHA standards, and cyber-security during the course of his career working at other utilities.¹¹
- Fred Fowler and Eric Mullins, as continuing members of the PG&E Boards, previously received safety trainings on topics appropriate for Board-level

¹⁰ See Attachment A at pp. A-17.

¹¹ See Attachment A at pp. A-25.

oversight of safety, in addition to regular briefings regarding PG&E safety programs, progress, and culture.¹² All current members of the PG&E Boards also have received safety training since the Boards were refreshed in April 2019.¹³

- Alejandro Wolff has had a 34-year career with the United States Department of State, and in that context, participated in numerous trainings by the federal government on guidelines and protocols for protecting the safety of U.S. personnel and facilities in areas affected by natural disasters, conflict, or terrorist threats. Mr. Wolff also has participated in trainings and presentations by safety experts on best practices for establishing and encouraging a strong corporate safety culture and safety management programs in his roles as a Director of Albemarle Corporation (specialty chemicals), Versum Materials (semiconductor industry manufacturer), and JetSMART (airline).¹⁴

B. Direct, Supervisorial, or Management Level Safety-Specific Work Experience

D.19-06-008 requests information regarding “[a]ll direct, supervisorial or management level safety-specific work experience, including all experience with corporate safety culture or safety management programs, with dates, job title, and including both general job duties and safety-specific job duties.” As discussed below and in Attachment A, members of the PG&E Boards also possess the deep and direct operational expertise and skills necessary to oversee the transformation of PG&E’s safety culture and performance. The PG&E Boards include individuals with decades of experience serving as executives of other utilities, with demonstrated

¹² See Attachment A at pp. A-21 (information for Mr. Fowler) and pp. A-33 (information for Mr. Mullins).

¹³ See Attachment A, *passim*.

¹⁴ See Attachment A at pp. A-39.

track records of achieving superior safety performance, whether it be related to gas pipeline safety, electric transmission and distribution safety, electric generation safety, nuclear safety, occupational safety, cyber-security, or employee and industrial safety:

- Mr. Johnson has a deep understanding of managing risk and the responsibility of keeping customers safe, with a proven track record of leadership on safe utility operations spanning the course of a more than 20-year career as a utility industry executive. From 2013 to 2019, he served as President and CEO of the Tennessee Valley Authority, leading the nation's largest government-owned utility to provide energy, environmental stewardship, and economic development across a seven-state region. During this time, the organization achieved the best safety record in its 85-year history and was a perennial top safety performer in the utility industry. Mr. Johnson has dedicated his career, including previous service as President and CEO of Progress Energy from 2007 to 2012, to delivering safe and reliable electricity service to millions of customers. He oversaw the development and implementation of Progress Energy's safety programs and performance. And, like the Tennessee Valley Authority, Progress Energy was an industry leader in safety and safety performance during his tenure.¹⁵
- Mr. Bleich has experience as a United States Ambassador to Australia, where he was responsible for the safety of all U.S. personnel in the country. In that role, Mr. Bleich was involved in rescue efforts for U.S. citizens stranded by flood waters, and received special recognition from the Australian government for his

¹⁵ See Attachment A at pp. A-25 – A-26.

leadership in coordinating joint firefighting efforts with Australian officials and first-responders.¹⁶

- Dr. Buckman served as President and CEO of PacifiCorp, President and CEO of Consumers Power Company (now Consumers Energy), and Chairman and CEO of Trans-Elect (an independent company dedicated to the ownership, operation, and development of electric transmission assets). He has more than 35 years of experience in operations and management of companies recognized for safe, reliable, and economic utility operations. His decades of experience include, among other things, responsibility for all aspects of safety, operations, and emergency planning for two nuclear power plants; and responsibility for the safe and efficient operation of a seven-state electric production, transmission, and distribution system. While CEO of Consumers Power Company, that company won, three times, the National Safety Council award for the nation's best safety performance by a combined gas and electric utility.¹⁷
- Ms. Campbell served as Senior Vice President of Xcel Energy and President and CEO of WestGas InterState, an interstate pipeline subsidiary of Xcel. In managing Xcel's gas operations, she oversaw the development of a pipeline safety management system (American Petroleum Institute Recommended Practice 1173) and was a member of the Executive Safety Team that met quarterly with the Corporate Vice President for Safety to review and discuss successes as well as continuous improvement for safety overall. She also participated in a number of

¹⁶ See Attachment A at pp. A-3.

¹⁷ See Attachment A at pp. A-13 – A-14.

safety programs that covered, among other things, behavioral safety, safety leadership, and identifying hazards. She also participated in annual working foreperson conferences for linepersons and fitters where a significant portion of the agendas related to safety. During her tenure, employee and public safety metrics improved significantly.¹⁸

- Mr. Fowler served as President and CEO of Spectra Energy Corp. and President and COO of Duke Energy. He has extensive experience over a long career in utility company operations, including safety, natural gas and gas liquids production, transportation and marketing, and electricity generation, transmission, and distribution. In these and other positions, utilities under Mr. Fowler's leadership have consistently achieved top quartile and top decile safety performance.¹⁹
- Eric Mullins, as Co-CEO of Lime Rock Resources, L.P., has experience leading a company that operates oil and gas facilities. In this capacity Mr. Mullins has ultimate responsibility for safe operations and employee safety and has been involved in implementing safety trainings for employees. As part of this role, Mr. Mullins established monthly safety meetings to discuss work conditions, consider safety innovations, and reinforce workplace safety culture.²⁰
- Ms. Schmidt has over 35 years of experience in the energy sector, where she has garnered significant safety experience across a wide variety of areas:

¹⁸ See Attachment A at pp. A-17 – A-19.

¹⁹ See Attachment A at pp. A-21 – A-22.

²⁰ See Attachment A at pp. A-33 – A-34.

- Ms. Schmidt recently served as CEO of Peak Utility Services Group, a provider of services for the recurring repair, replacement, maintenance, and upgrade of electric power and natural gas infrastructure. In this capacity, she led an increased focus and discussion of safety risks, performance, and cultural expectations for the enterprise’s three operating companies.²¹
- As Vice President of ITC Holdings and President of ITC Great Plains (the nation’s largest independent high-voltage transmission company) from 2012 to 2015, Ms. Schmidt attended safety meetings with crews constructing high-voltage transmission lines in Kansas and Oklahoma, and regularly participated in safety culture and performance discussions with the senior executive team.²²
- As the Director of Federal Regulatory Affairs at Xcel Energy from 2006 to 2008, Ms. Schmidt oversaw Xcel’s development and implementation of (and compliance with) its North American Electric Reliability Corporation mandatory standards compliance plan. She also attended numerous employee safety training sessions and tours of critical bulk power facilities, including power plants, high-voltage transmission lines, substations, control centers, distribution systems, and crew service centers.²³ This related to her experience serving as a FERC Commissioner

²¹ See Attachment A at pp. A-36 – A-37.

²² See Attachment A at pp. A-36 – A-37.

²³ See Attachment A at pp. A-35 – A-36.

Advisor from 2003 to 2006. Ms. Schmidt's areas of expertise included reliability matters, infrastructure sufficiency, and security concerns.²⁴

- From 1992 to 2000, Ms. Schmidt held various roles at Northern States Power Company. As the Manager of Wholesale Market Services (1992 – 2000), she participated in annual reviews of safety performance and discussions with senior management on the importance of safety, and she oversaw approval of safety goals, budget, and targets. As Director of Gas Sales, Marketing & Business Development (1997 – 2000), she participated in monthly senior executive meetings on safety performance and culture; had weekly discussions and reporting of safety issues, performance, and culture for gas utility operations; and oversaw approval of safety goals, budget, and targets. In this position, Ms. Schmidt also was a member of the Crisis Response Executive Team formed in response to the December 11, 1998 natural gas explosion in Saint Cloud, Minnesota, in which four people died as a result of contractors accidentally severing a gas pipe.²⁵
- Mr. Wolff has considerable experience in disaster response and preparedness. As the U.S. Vice Consul in Oran, Algeria in 1980, he coordinated the arrival and distribution of the first wave of disaster relief supplies and equipment transported by the U.S. Air Force following a devastating earthquake. More recently, as U.S. Ambassador to Chile, following the 2010 earthquake and tsunami, Mr. Wolff led the assessment of how best to mitigate and minimize consequences to U.S.

²⁴ See Attachment A at pp. A-36.

²⁵ See Attachment A at pp. A-37.

personnel and facilities from future earthquakes and the implementation of various changes to procedures and protocols, including the development of early warning procedures. Mr. Wolff also has significant experience ensuring the safety and protection of people and facilities in various threat contexts. This includes (i) serving as Deputy Chief of Mission at the U.S. Embassy in Cyprus, where he was responsible for the safety of U.S. personnel and facilities during a time of heightened military tension between Greece and Turkey and increasing terrorist threats; and (ii) serving as Deputy Chief of Mission at the U.S. Embassy in Paris at the time of the September 11, 2001 terrorist attacks, where he oversaw subsequent efforts to safeguard and harden U.S. facilities and personnel in the region and coordinated emergency evacuation procedures for natural disasters or armed conflicts.²⁶

C. Safety-Specific Board of Directors Experience

D.19-06-008 requests information regarding “[a]ll safety-specific board of director experience, including specific safety committees served on, dates of service, the scope of committee jurisdiction, and any experience relating to corporate safety culture or safety management programs.” As discussed below and in Attachment A, members of the PG&E Boards possess a broad array of safety-specific board experience. This includes substantial experience serving on the boards and safety committees of other public utilities (including combined gas and electric utilities, pipeline companies, and electric transmission and distribution companies), and achieving top safety performance. In addition, members of the PG&E Boards have served on various other safety committees, including the U.S. Department of

²⁶ See Attachment A at pp. A-39 – A-40.

Transportation's Gas Pipeline Advisory Committee and the Pipeline Safety Task Force of the Interstate Natural Gas Association of America.

- Ms. Brownell served on the Safety, Environment and Health Committee of National Grid (an electricity and natural gas company), received extensive safety training, was involved in process safety restructuring, and reviewed root cause analyses of safety incidents. She also made multiple site visits each year, which often involved reviews of key safety related operations, including control rooms and operations centers. While serving on the boards of Spectra (a pipeline company) and Oncor (an electric transmission company), Ms. Brownell also actively reviewed safety performance, metrics, and incidents.²⁷
- Mr. Bleich currently serves on the Board of Directors of Nuix, a cyber-intelligence company. Mr. Bleich previously served as President of the State Bar of California from 2007 to 2008 and participated in developing safety protocols for law offices and courthouses in California. He also served as Chair of the California State University System from 2008 to 2009, helping to develop safety protocols for 23 campuses serving 490,000 students. Mr. Bleich also currently serves as chair of the Fulbright Board, and has participated in decision-making on safety evacuations of Fulbright students and scholars from Turkey and Sri Lanka, as well as confidential situations in other locations. He is also a Professor and member of the Advisory Board at the Jeff Bleich Centre for Digital Technology, Security, and Governance at Flinders University, Australia. The Centre is

²⁷ See Attachment A at pp. A-10 – A-11.

dedicated to the study of programs to address cyber-security threats to digital technology.²⁸

- While Dr. Buckman served on the board of Solomon Corporation, the board initiated an upgrade to safety culture and performance, and in the following five years, there was a six-fold improvement in overall safety performance.²⁹
- Ms. Campbell served as a member of the U.S. Department of Transportation's Gas Pipeline Advisory Committee. Her tenure included providing guidance on gas pipeline safety rule changes, and she sat on a task force whose purpose was to understand and reduce barriers to implementing pipeline safety management systems. She also serves as a member of the independent panel assessing the enterprise risk management and overall safety of the 11 gas utilities in Massachusetts in the aftermath of the September 2018 explosions and fires in Merrimack Valley. Ms. Campbell also was on the American Gas Association Operations Management Committee from 2006 to 2018, serving on the Executive Committee and chairing it in 2017; this Committee led development and adoption of proactive industry positions on improving safety and operations in the aftermath of the San Bruno tragedy and other events. From 2010 to 2018, Ms. Campbell also worked closely with the Xcel Energy Board of Directors (specifically, the Safety and Operational Committee) on understanding and

²⁸ See Attachment A at pp. A-3 – A-4.

²⁹ See Attachment A at pp. A-14 – A-15.

reducing risk around gas assets, including significant discussion of safety culture, safety management systems, behavioral change, and related topics.³⁰

- Mr. Fowler served as Chair of the Pipeline Safety Task Force of the Interstate Natural Gas Association of America, established to improve security practices in the industry and to evaluate and improve interaction and communication with federal, state, and local governments to enhance security. He also currently serves on the Corporate Responsibility, Environmental, Health and Safety Committee of the Board of Directors of Encana Corporation, and has served on the boards of Spectra Energy Partners and DCP Partners, all of which have achieved top safety performances according to the applicable industry metrics. During his service on the PG&E Boards, Mr. Fowler also has served on PG&E's Safety and Nuclear Oversight ("SNO") Committees (and previously on PG&E Corporation's Nuclear, Operations, and Safety Committee), which oversee matters relating to safety, operational performance, and compliance issues related to Pacific Gas and Electric Company's nuclear, generation, gas and electric transmission, and gas and electric distribution operations and facilities.³¹
- Mr. Johnson has served as a member of the board of the Institute of Nuclear Power Operations since 2013, the board of Nuclear Electric Insurance Limited from 2013 to 2019, and the board of the World Association of Nuclear Operators from 2015 to 2019 (including serving on the Planning Committee).³²

³⁰ See Attachment A at pp. A-18 – A-20.

³¹ See Attachment A at pp. A-22 – A-23.

³² See Attachment A at pp. A-26.

- Meridee Moore served on the International Board of Directors of Right to Play International from 2004 to 2018. Right to Play is a non-governmental humanitarian organization providing educational and enrichment activities to over 1 million disadvantaged children across 15 countries in the Middle East, Africa, and Asia. Most programs are in war zones, refugee camps, and other areas ravaged by conflict, disease, or climate change. In this capacity, Ms. Moore oversaw development and implementation of a comprehensive child protection policy and employee training protocols for programs in schools, refugee camps, and other community centers. These training programs and protocols are risk-based, not compliance-based, and prioritize buy-in across all stakeholders.³³
- Mr. Mullins serves as member of the Board of Directors of Anadarko Petroleum Corporation (2012 – present; chair of the Audit Committee). The board is responsible for setting operational, financial, and safety goals for the enterprise. In his capacity as a director, Mr. Mullins regularly reviews safety data and safety performance metrics for an oil and natural gas exploration business. During his tenure, Anadarko has maintained a company-wide focus on safety, and achieved industry-leading safety performance as measured by the number of total recordable incidents per 100 workers. During his service on the PG&E Boards, Mr. Mullins also been a member of PG&E’s SNO Committees (and previously on PG&E Corporation’s Nuclear, Operations, and Safety Committee).³⁴

³³ See Attachment A at pp. A-31.

³⁴ See Attachment A at pp. A-33 – A-34.

- Mr. Wolff currently serves on three corporate boards: (i) Albemarle Corporation, a specialty chemicals company, where he sits on the Health, Safety and Environment Committee; (ii) Versum Materials, an electronic materials company, where he chairs the Governance Committee; and (iii) JetSMART Holdings Limited, an airline operating in South America. In these capacities, he shares oversight responsibilities for all safety-related issues affecting the companies, their employees, their customers, and the communities in which they operate. Additionally, as chair or a member of the Compensation Committee of each of these boards, he has experience developing incentive pay structures that prioritize and successfully promote superior safety performance. Mr. Wolff also previously served on the board of Rockwood Holdings (a public specialty chemicals company) from 2014 to 2015, where he chaired the Governance Committee, which was responsible for overseeing the company's Health, Safety, and Environment policies and practices.³⁵

D. Other Previous and Current Board Positions

D.19-06-008 requests “[a]ll other previous and current board positions at other organizations, including dates, names of companies, and any special duties or offices.” As discussed further in Attachment A, the individual members of PG&E’s Boards have broad experience serving on other boards and leadership committees for a variety of organizations. This includes substantial experience serving on the boards of energy companies, other related corporations and industry groups (such as Association of Edison Illuminating Companies, Edison Electric Institute, Comverge, Inc., Colorado Oil & Gas Association, The Gas Research Institute,

³⁵ See Attachment A at pp. A-40 – A-41.

Interstate Natural Gas Pipeline Association, LRR Energy, LP, Nuclear Electric Insurance Limited, Nuclear Energy Institute, Nuclear Mutual Limited, North American Energy Standards Board, and Western Energy Imbalance Market Governing Body).³⁶ In addition, members of the PG&E Boards have served as directors of a variety of other corporations—both private and public—as well as other private and public institutions and academic and philanthropic organizations.³⁷

E. Other Current Professional Commitments

D.19-06-008 requests information regarding “[a]ll other current professional commitments, including employment, consulting or other contract work, and any significant and ongoing volunteer work.” As discussed further in Attachment A, the individual members of PG&E’s Boards, like the members of virtually all other public company boards, have other professional commitments. These include full- and part-time work as well as ongoing volunteer and other philanthropic commitments.³⁸

PG&E Corporation’s and Pacific Gas and Electric Company’s Corporate Governance Guidelines both prescribe specific rules in this area. Directors who are considering service on the board of a public company other than PG&E Corporation and its subsidiaries must notify the Chair of the PG&E Corporation Nominating and Governance Committee and the Chairs of each Board before accepting membership on any such board. Also, unless otherwise approved by PG&E Corporation’s Board of Directors and Pacific Gas and Electric Company’s Board of Directors (as applicable), (i) a director may not serve on more than three public company boards

³⁶ See Attachment A, *passim*.

³⁷ See Attachment A, *passim*.

³⁸ See Attachment A, *passim*.

in addition to the Boards of PG&E Corporation and its subsidiaries; and (ii) a director who is the principal executive officer of a public company (including PG&E Corporation and Pacific Gas and Electric Company) may not serve on more than two public company boards in addition to the board of his or her employer.³⁹

Each member of PG&E's Boards has committed and will continue to commit the necessary focus and time to oversee all facets of PG&E's business and restore it to operational excellence and financial health.

Respectfully Submitted,

HENRY WEISSMANN
JAMES C. RUTTEN
GIOVANNI SAARMAN GONZÁLEZ

By: /s/ Henry Weissmann

Henry Weissmann

Munger, Tolles & Olson LLP
350 South Grand Avenue
Los Angeles, California 90071-3426
Telephone: (213) 683-9150
Facsimile: (213) 683-5150
E-Mail: henry.weissmann@mto.com

JANET C. LODUCA
WILLIAM V. MANHEIM

Pacific Gas and Electric Company
77 Beale Street, B30A
San Francisco, California 94105
Telephone: (415) 973-6628
Facsimile: (415) 973-5520
E-Mail: William.Manheim@pge.com

Dated: July 3, 2019

Attorneys for PACIFIC GAS AND ELECTRIC
COMPANY and PG&E CORPORATION

³⁹ For purposes of this policy, the Boards of PG&E Corporation and its subsidiaries (including Pacific Gas and Electric Company) are considered one board.

Attachment A

SAFETY CULTURE OII COMPLIANCE FILING EXHIBIT
Richard R. Barrera

A. Safety-Specific Education and Training

- Pacific Gas and Electric Company & PG&E Corporation (San Francisco, CA), 2019
Board Member
As a member on the PG&E Boards, including during the on-boarding process, received general information regarding safety programs and culture at the companies, and received more targeted safety training regarding, among other things, hazards and associated mitigations for field work in connection with PG&E's gas and electric operations and power generation.

B. Direct, Supervisorial or Management Level Safety-Specific Work Experience

- N/A

C. Safety-Specific Board of Directors Experience

- N/A

D. Other Previous and Current Board Positions

- Success Academy Charter Schools (New York, NY), 2013 – Present
- Mount Sinai Children's Center (New York, NY), 2012 – Present

E. Other Current Professional Commitments

- Roystone Capital Management LP (New York, NY), 2013 – Present
CEO and Founder

SAFETY CULTURE OII COMPLIANCE FILING EXHIBIT

Jeffrey L. Bleich

A. Safety-Specific Education and Training

- United States Department of State (Canberra, Australia), 2009 – 2013
Ambassador to Australia
Received extensive safety trainings on natural disasters, violent assaults, cyber-threats, and other scenarios. Participated in joint exercises on safety preparedness with U.S.-based companies, particularly in defense and extractive/resource sectors. Received regular briefings on wildfires and flood risks in Australia.
- California State University Board (Long Beach, California), 2004 – 2009
Member, Board of Trustees; Vice Chair (2006 – 2008); Chair (2008 – 2009)
Developed protocols for student safety for all 490,000 students in the California State University System, and participated in safety trainings related to student safety risks at multiple California State University campuses.
- Other Government Service (Office of the White House and Office of the Director of National Intelligence) (Washington, D.C.), 2008 – 2009; 2014 – 2016
Special Counsel to the President, and Senior Advisor to the Director of National Intelligence
Received safety trainings for “high threat environments” including White House evacuation procedures, the Office of the Director of National Intelligence, and various intelligence facilities. Actively participated in developing cyber-security protocols with senior intelligence officials.
- Munger, Tolles & Olson LLP (San Francisco, CA), 1992 – 2009
Attorney
Received training as emergency response coordinator for San Francisco office. Led office response to active shooter in building during fatal shooting at a bank in the lobby of the building.
- Pacific Gas and Electric Company and PG&E Corporation (San Francisco, CA), 2019
Board Member
As a member on the PG&E Boards, including during the on-boarding process, received general information regarding safety programs and culture at the companies, and received more targeted safety training regarding, among other things, hazards and associated mitigations for field work in connection with PG&E’s gas and electric operations and power generation.

B. Direct, Supervisorial or Management Level Safety-Specific Work Experience

- United States Department of State (Canberra, Australia), 2009 – 2013
Ambassador to Australia
Responsible for the safety and security of all Embassy personnel, and U.S. Forces and U.S. citizens in the Commonwealth of Australia. Participated directly in rescue missions for U.S. personnel stranded in flood waters. Participated in Talisman Sabre joint exercises, involving safety trainings for various military threat scenarios. Participated in physical assault response during three separate incidents. Received special recognition from the Australian Capital Territory fire services for leadership in connection with U.S.-Australia joint firefighting operations.
- California State University Board (Long Beach, CA), 2004 – 2009
Member, Board of Trustees; Vice Chair (2006 – 2008); Chair (2008 – 2009)
Served on the audit/risk management committee and reviewed safety protocols for evacuations relating to floods, fires, windstorms, earthquakes, and active shooters.
- Munger, Tolles, and Olson (San Francisco, CA), 1997 – 2007
Attorney
Served as lead counsel on a series of products liability cases concerning fire hazards associated with HVAC and furnace systems. As lead counsel in an action against Carrier relating to residential fires, performed extensive research with experts on systems failures, ignition mitigation, and fire forensics. As lead counsel for Trane, Inc. in litigation concerning training of personnel to ensure safe repair of commercial HVAC systems, performed extensive research and training with experts regarding safety protocols for persons servicing HVAC systems to prevent toxic substance leaks, fires, and explosions. Served as lead counsel in Microsoft's first cyber-security case and continued as principal outside counsel in its cyber-security related litigation.
- Fulbright Foreign Scholarship Board (Washington, D.C.), 2014 – Present
(appointed by President Barack Obama)
Board Chair
Participated in decision-making on safety evacuations of Fulbright students and scholars from Turkey and Sri Lanka, and confidential situations in other locations.

C. Safety-Specific Board of Directors Experience

- Nuix USG, Inc. (Novato, CA), 2016 – Present
Chair
Oversee operations at a cyber-security company. Participated in multiple cyber-security analyses involving threat mitigation for specific utilities, financial services, energy grids, water systems, and companies that participate in national security efforts. As board chair, have given presentations in Germany, London, Australia, Japan, and Singapore on cyber-threats and responses.

- State Bar of California (San Francisco, CA), 2007 – 2008
President
Participated in the development of safety protocols for law offices and courthouses in California.
- Flinders University (Adelaide, Australia), 2019, Professor at the Jeff Bleich Centre for the U.S. Alliance in Digital Technology, Security, and Governance.
Professor and Advisory Board member
Center dedicated to the study of programs to address security threats in digital technologies.

D. Other Previous and Current Board Positions

- East-West Center (Honolulu, HI), 2017 – Present
Member (appointed by Secretary of State John Kerry)
- Amherst College (Amherst, MA), 2017 – Present
Board of Trustees
- Stanford University, Center for Advanced Study of Behavioral Sciences (Palo Alto, CA), 2014 – Present
Board of Directors
- Director of National Intelligence, Senior Advisory Group (Washington, D.C.), 2014 – 2017, Member (appointed by Director of National Intelligence James Clapper)
- Pratt Family Foundation (Greensboro, NC), 2013 – 2017
Board of Advisers
- Sorensen Center for Peace and Justice, City University of New York School of Law (New York, NY), 2014 – 2018
Board of Advisers
- Sydney University, U.S. Studies Center (Sydney, Australia), 2015 – Present
Board of Advisers
- Tanium (Emeryville, CA), 2019 – Present
Board of Advisers
- Rand Corporation Australia (Manuka, Australia), 2014 – Present
Board of Advisers
- Futures Without Violence (San Francisco, CA), 2015 – Present
Board of Directors

- San Francisco Symphony (San Francisco, CA), 2014 – 2018
Board of Directors
- Australian-American Leadership Dialogue (Hawksburn, Australia), 2014 – Present
Board of Directors
- Say Hey Foundation (Menlo Park, CA), 2014 – Present
Board of Directors
- World Affairs Council of Northern California (San Francisco, CA), 2014 – Present
Board of Directors
- American Security Project (Washington, D.C.), 2014 – Present
Board of Directors
- Council on Foreign Relations (New York, NY), 2003 – Present
Elected Permanent Member
- American Law Institute (Philadelphia, PA), 2000 – Present
Elected Permanent Member
- Bar Association of San Francisco (San Francisco, CA), 2003
President
- Lawyers Committee for Civil Rights (Washington, D.C.), 1998 – 1999
Chair
- Legal Services for Children (San Francisco, CA), 2001 – 2002
Chair
- U.S. District Court for N.D. Cal. Judicial Conference (San Francisco, CA), 2003
Chair
- American Bar Association Standing Committee on Amicus Briefs (Chicago, IL), 2004 – 2009
Chair
- Barristers Club of San Francisco (San Francisco, CA), 1995
President
- Legal Aid Society of San Francisco (San Francisco, CA), 1997 – 2008
Board of Directors

- Permanent Court of Arbitration (The Hague, Netherlands), 1992 – 1993
Special Rapporteur
- Edward J. McFettridge American Inns of Court (Alexandria, VA), 1995-2008
Barrister

E. Other Current Professional Commitments

- Special Master, U.S. District Court for Northern District of California, *In re Capacitors Multi-District Litigation*; Consultant/Advisor to various private companies (San Francisco, CA), April 2019 – Present
- Clif Bar & Co, (Emeryville, CA), May 2019 – Present
Consultant/Advisor

SAFETY CULTURE OII COMPLIANCE FILING EXHIBIT
Nora Mead Brownell

A. Safety-Specific Education and Training

- Michigan State University Institute of Public Utilities (Lansing, MI), 1998
Received training on regulatory oversight responsibilities, including maintaining the safety of water, gas, and electric utility operations.
- University of Idaho (Moscow, ID), 2001
Taught class on regulatory oversight, including oversight of safety, with a particular focus on cyber-security.
- National Regulatory Research Institute (Silver Spring, MD), 1998
Received regulatory training for new members of the Pennsylvania Public Utilities Commission, which included training on safety in the utility context.
- Pennsylvania Public Utilities Commission (Harrisburg, PA), 1997 – 2001
Commissioner
Received training on a regular basis regarding the safety of electric and gas utilities and regarding the safety of water systems.
- Federal Energy Regulatory Commission (FERC) (Washington, D.C.), 2001 – 2006
Commissioner
Received trainings on safety issues related to hydroelectric assets, liquefied natural gas facilities, cyber-security, and pipelines. Also received Top Secret briefings on cyber-security and critical infrastructure. Attended meetings with the Nuclear Regulatory Commission (NRC) on nuclear security and received additional training on cyber exposure for infrastructure from various government agencies like Department of Energy, National Renewable Energy Laboratory, and Department of Homeland Security, as well as at private organizations including Idaho Laboratory and the New York Stock Exchange. In addition, FERC conducted regular safety briefings from project engineers on pipeline, hydroelectric generation facilities, and transmission infrastructure.
- Quanta Services (Houston, TX), 2017
Received “live line” safety training and pole/wire/job site training at the Quanta Training Center, which addressed safely working with transmission capacity.
- National Grid, PLC (United Kingdom/Northeast U.S.), 2012 – 2019
Received recurring executive safety trainings, including attending and reviewing the electric apprentice training at Eakring— the National Grid Training Center— on safely working with electrical infrastructure.

- Pacific Gas and Electric Company and PG&E Corporation (San Francisco, CA), 2019
Board Member
As a member on the PG&E Boards, including during the on-boarding process, received general information regarding safety programs and culture at the companies, and received more targeted safety training regarding, among other things, hazards and associated mitigations for field work in connection with PG&E's gas and electric operations and power generation.
- Regularly participate in utility industry conferences, seminars, and policy-making meetings. A subset where safety issues were discussed are:
 - Edison Electric Institute Conference (San Francisco, CA), 2013
 - Harvard Energy Policy Group 78th Plenary Session (Half Moon Bay, CA), 2015
 - Aspen Institute Energy Policy Forum (Aspen, Colorado), 2003 – 2012; 2015
 - Bridging the Cybersecurity Governance Gap Webinar, Directors and Boards, 2015
 - Credit Conversations: Corporate Ratings and Counterparty Risk Assessment Webinar, Standard & Poor's, 2015
 - Cyber Risk Management in the Digital Age, New York Stock Exchange, 2015
 - National Academy of Sciences *Power of Change* select committee briefings with House Committee on Science, Space & Technology, Representative Joe Barton (TX), Representative Paul Tonko (NY), Dr. Franklin Orr (Dept. of Energy Under Secretary for Science and Energy), and Senate Energy and Natural Resources Committee (Washington, D.C.), 2016
 - Meeting with Senator Chris Coons' senior advisor, Franz Wuerfmannsdobler, regarding energy innovation efforts and regional resources (Washington, D.C.), 2016
 - Harvard Energy Policy Group 89th Plenary Session (Palm Beach, Florida), 2018
 - Harvard Energy Policy Group 91st Plenary Session (panelist – HEPG: 25 Years Old – Looking Back, Looking Forward) (Cambridge, Massachusetts), 2018

- Utility Perspectives (various locations in the United States and Canada), 2005 – 2019
Panel moderator – Grid Modernization & Financial Implications (Toronto, Canada), 2018
- State of the Electric Utility: 2019 Survey Trends Webinar panelist, Industry Dive, 2019

B. Direct, Supervisorial or Management Level Safety-Specific Work Experience

- Pennsylvania Public Utility Commission (Harrisburg, PA), 1997 – 2001
Member of the Pennsylvania Public Utility Commission
Performed a number of safety related responsibilities as a Commissioner. Under the Public Utility Code, an electric utility in Pennsylvania has a legal duty to maintain safe, adequate, and reasonable service and facilities and to make repairs, changes, and improvements that are necessary or proper for the accommodation, convenience, and safety of its patrons, employees, and the public. Pursuant to its statutory powers, the Commission is authorized to adopt and enforce rules to ensure that electric distribution companies (EDCs) provide safe, adequate, and reliable service. Commission ensures that EDCs adhere to established industry standards and practices, such as the national standards of the National Electric Safety Code, regarding the installation and maintenance of transmission and distribution facilities.

The PUC also has oversight responsibility for gas local distribution companies (LDCs), investor-owned water companies, intrastate shipping companies, telecommunications, and taxi cabs. As a Commissioner, regularly reviewed the safety performance of these companies. During tenure, also conducted site visits to a number of locations, including Three Mile Island, customer call centers, LDCs, water companies, and performed safety inspections.

- Federal Energy Regulatory Commission (FERC) (2001 – 2006)
FERC Commissioner
Major developments during tenure included the transition of the North American Reliability Corporation to FERC oversight. Conducted hundreds of site visits, including trips to pipelines, hydroelectric plants, nuclear facilities, generation plants, equipment manufacturers, liquefied natural gas (LNG) plants, solar, wind and battery facilities, and transmission control rooms.

In this role, also toured LNG terminals in Portugal, Spain, and the United States, and developed appropriate licensing procedures for LNG import plants in Maryland, Georgia, Massachusetts, and proposed terminals in Alaska, which included developing appropriate safety standards as part of the licensing process. Visited at least 15 hydroelectric plants in the western United States to assess safety, environmental, national security concerns, as well as tribal issues during

relicensing procedures. During site visits, reviewed safety procedures for new pipeline infrastructure that was being contemplated at the various locations in Alaska, including North Slope, Seward, and Prince William Sound.

C. Safety-Specific Board of Directors Experience

- National Grid (United Kingdom/Northeast U.S.), 2012 – 2019
Safety, Environment, and Health Committee; Remuneration Committee
Oversaw process safety restructuring, reviewed root cause analysis of safety incidents, and conducted site visits focused on safety performance for several electric utility companies over a period of seven years. Conducted an average of 6-7 site visits per year. A typical visit involved reviews of key safety related operations, including the control room, the Cyber Security Operations Center, and the Gas Dispatch and Gas Control rooms (for a gas operations facility). For example, a November 9, 2017 site visit to Bacton Gas Terminal, a complex of six gas terminals in the United Kingdom, included a review of safety training and safety operations as well as a simulated exercise and debriefing with employees, national security personnel and local police of an outside attack on the control room of this critical infrastructure asset. Actively reviewed safety performance metrics, and incidents. Received extensive safety training as part of this role.

As a member of the Safety, Environment, and Health Committee, received reports from global safety directors seven times per year on safety metrics, and detailed reviews of major incidents, reviews of government compliance issues and rules in the United States, United Kingdom, Massachusetts, Rhode Island, and New York. Had oversight responsibility over safety metrics and compliance at each of the nine board meetings each year.

Also received additional outside subject matter briefings by cyber-security, and other experts at least once a year. Together with other board members, engaged in periodic deep dives into extreme safety events, such as Hurricane Sandy.

- Spectra Energy Partners (Houston TX), 2007 – 2018
Board Member, Audit and Conflicts Committee
Reviewed Safety and Operation statistics and incidents at each meeting, including routine discussion of procedural and system changes required to maintain high performance metrics.
- ONCOR, Inc. (Dallas TX), 2007 – 2014
Board Member, Audit Committee
Board members routinely reviewed all critical safety metrics and incidents. Participated in annual North American Electric Reliability Corporation cyber-security exercise. In transitioning to an upgraded transmission and distribution grid, visited numerous equipment manufacturers, the Walmart Emergency Operations Center, and the ONCOR center for recycling critical equipment to fulfill our sustainability commitment.

- National Association of Regulatory Utility Commissioners (NARUC), 2000 – 2001
President
Oversaw the development of the Committee agenda for NARUC meetings, which included a discussion of safety concerns in the industry.

D. Other Previous and Current Board Positions

- Comverge, Inc. (Atlanta GA), 2007 – May, 2012; December, 2012 – 2014
Board Member, Compensation Committee (2007 – May, 2012), Chair (2010 – 2011), Regulatory Committee (December 2012 – 2014)
- Ener1 (Greenfield, IN), 2010 – 2012
Board Member
- Leaf Clean Energy (Cayman Islands), 2008 – 2009
Board Member
- Times Publishing, (Erie PA), 1996 – 2016
Board Member
- Tangent Energy Solutions, Inc. (Kennett Square, PA), 2000 – 2019
Board Member
- Millennium Bank (Philadelphia/Malvern, PA), late 1980s - mid 1990s
Board Member
- Morgan Stanley Infrastructure Advisory Board (New York, NY), 2014 – Present
Advisory Board Member
- TerViva Bioenergy (Oakland, CA), 2012 – 2017
Board Member
- Direct Energy Advisory Council (Houston, TX), 2014 – 2017
Advisory Board Member
- New World Capital Group (New York, NY), 2009-2016
Advisory Board Member
- Starwood Energy Fund (New York, NY), 2006 – 2014
Board Member
- Gridwise Architecture Council (Richland, WA), 2008 – 2009
Board Member

- Lockheed Martin FERC ITSS Technical Advisory Group (Rockville, MD), 2014 – 2015
Advisory Board Member
- North American Energy Standards Board (NAESB) (Houston, TX), 2013 – 2014
Advisory Board Member
- Women’s Council on Education and Environment (Washington D.C.), 2006 – 2008
Advisory Board Member
- She Should Run (Washington D.C.), 2013 – 2015
Board Member
- Regional Performing Arts Center (Philadelphia, PA), 1996 –1997
Board Member
- Philadelphia Free Library (Philadelphia, PA), late 1990s
Board Member
- Foundation for Architecture (Philadelphia, PA), late 1990s
Board Member
- Need in Deed (Philadelphia, PA), late 1990s
Board Member

E. Other Current Professional Commitments

- Alexandria Families for Safer Streets (Alexandria, VA), 2017 – present

SAFETY CULTURE OII COMPLIANCE FILING EXHIBIT
Frederick W. Buckman

A. Safety-Specific Education and Training

- Ph.D. in Nuclear Engineering, Massachusetts Institute of Technology (Cambridge, MA), 1970
Coursework included instruction on nuclear reactor safety. Ph.D. thesis involved the study of reactor safety in boiling water reactors.
- Industry experience in nuclear operations, power generation, transmission and distribution, and power plant construction included regular safety briefings on workplace safety, radiation protection, emergency preparedness and working in confined spaces.
- Pacific Gas and Electric Company and PG&E Corporation (San Francisco, CA), 2019
Board Member
As a member on the PG&E Boards, including during the on-boarding process, received general information regarding safety programs and culture at the companies, and received more targeted safety training regarding, among other things, hazards and associated mitigations for field work in connection with PG&E's gas and electric operations and power generation.

B. Direct, Supervisorial or Management Level Safety-Specific Work Experience

- Shaw Power Group (Charlotte, NC), 2009 – 2010
President and CEO
Responsible for operations at a division tasked with the design and construction of six domestic nuclear units, four international nuclear units, seven coal units, and several combined gas cycle units. Oversaw over 21,000 employees, most of whom were field personnel. Prioritized instilling a strong safety culture at the line-level: Each construction site visitor received a four-hour safety briefing, and each employee received approximately 40 hours of workplace safety training.
- Trans-Elect (Reston, Virginia), 1999 – 2007
Chair and CEO
Trans-Elect is an independent company dedicated to the ownership, operation, and development of electric transmission assets. During tenure, Trans-Elect purchased and then operated two electric transmission companies in North America, and constructed "Path 15"—an 84 mile electric power transmission corridor in California. Each of these projects involved a focus on electrical transmission safety.

- PacifiCorp (Portland, OR), 1994 – 1998
President and Chief Executive Officer
Responsible for all operational aspects, including safety, for an electric generation, transmission, and distribution system, as well as a telephone local exchange company. Electrical generation, transmission, and distribution businesses operated in seven states, including Northern California. Also oversaw operations and safety at several coal mines.
- Consumers Power Company (Jackson, MI), 1986 – 1994
CEO (1992 – 1994); President (1988 – 1994); Senior Vice President for Energy Supply (1987 – 1988); Vice President and Chief Nuclear Officer (1986 – 1987)
As Vice President and Chief Nuclear Officer, was responsible for operations, safety, licensing, and emergency planning at the Big Rock Point and Palisades nuclear plants. Included responsibility for offsite safety issues—including plant safety analysis, licensing, emergency planning, site security, and workplace safety—for approximately 1,000 employees. As Senior Vice President for Energy Supply, those responsibilities extended to all generating facilities in the Consumers Power system.

As President, and later President and CEO, had responsibility for all aspects of Consumers Power’s operations. Instituted a “presidential review” of each lost workday caused by a safety incident, in order to facilitate root cause analysis and implement corrective action, as well as to elevate overall safety visibility in the company and improve safety performance. During this six-year period, Consumers Power won the National Safety Council award for the Nation’s best safety performance by a combined gas and electric utility three times.

C. Safety-Specific Board of Directors Experience

- Solomon Corporation (Solomon, KS), 2013 – Present
Board Member
During tenure, the Board challenged the management team to upgrade both the safety performance and the safety culture at the organization. In the following years there was an approximately six-fold increase in overall safety performance as measured by the total recordable incident rate.
- General Fusion (Burnaby, Canada), 2013 – Present
Board Chairman and Chairman of the Compensation Committee
Currently working with management to establish a strong safety culture.
- Osmose Corporation (Peachtree City, GA), 2014 – 2015
Board Member
Osmose is a company that is responsible for inspection and repair of distribution poles, transmission towers, and related structures. Board-level responsibilities include oversight for safety processes.

- Quanta Services (Houston, TX), 2011 (Approximate)
Board Member
Quanta Services is a large contractor performing engineering, procurement and construction services in the electric transmission and gas pipeline businesses. Board-level responsibilities include oversight for safety processes.
- InfraSource (Lenexa, KS), 2007 – 2010 (Approximate)
Board Member
InfraSource provides construction and professional engineering services to natural gas, oil, and electric industries, with a commitment to safety and quality.
- Trans-Elect (Reston, Virginia), 1999 – 2006
Chair
Trans-Elect was a company engaged in the acquisition, construction and operation of electric transmission assets. In addition to responsibilities as President and CEO, exercised oversight of operations, including safety performance.
- PacifiCorp (Portland, OR), 1994 – 1998
Board Member
PacifiCorp is a multi-state vertically integrated electric utility. Also provided multi-state telephone local exchange services.
- CMS Energy (and Consumers Power Company) (Jackson, MI), 1987 – 1994
Board Member
CMS Energy (holding company) and Consumers Power Company provided electric and gas service to about 1.6 million and 1.5 million customers, respectively, in Michigan. As a senior officer of the utility, served on both the utility and parent Board for approximately seven years, with oversight responsibility for company operations.

D. Other Previous and Current Board Positions

- Oregon Health and Science University (Portland, OR), 1995 – 2003
- StanCorp Financial Group (Portland, OR), 1996 – Present
- Waverley Country Club (Portland, OR), 2008 – 2010 (dates approximate)
- SPG Solar (Novato, CA), 2011 – 2015 (dates approximate)
- Gradient Resources (Reno, NV), 2012 – 2015 (dates approximate)
- Terrestrial Energy (New York, NY), 2016 – Present
- Contract Land Staff (Sugar Land, Texas), 2016 – 2017

- Waverley Historic Foundation (Portland, OR), 2017 – Present
- Nuclear Mutual Limited (Hamilton, Bermuda), dates of service unknown
- Nuclear Electric Insurance Company Limited (Hamilton, Bermuda), dates of service unknown
- Association of Edison Illuminating Companies (AEIC) (Birmingham, AL), dates of service unknown

E. **Other Current Professional Commitments**

- N/A

SAFETY CULTURE OII COMPLIANCE FILING EXHIBIT
Cheryl F. Campbell

A. Safety-Specific Education and Training

- Xcel Energy (Denver, CO), 2004 – 2018
Senior Vice President (2011 – 2018); Vice President—Colorado Operations (2009 – 2011); Director, Asset Strategy (2004 – 2009)
Participated in a number of safety programs and trainings, including several focused on developing safe workplace practices and behaviors, safety leadership, safety culture, identifying hazards, and behavioral safety in general. Participated in a number of safety meetings annually—including monthly work group safety meetings, quarterly regional safety meetings (with line workers), and annual working foreperson conferences for linepersons and fitters (which discussed safety issues at the line level, understanding risk, and communicating safety concerns with co-workers who are not following safety procedures). Also interacted regularly with safety speakers at these annual conferences, including individuals who had suffered serious injuries from safety incidents in the utility industry. Routinely interacted with and spoke about safety at annual safety kick-off meetings, mid-year safety campaigns, and on regular crew visits in the field.
- Pacific Gas and Electric Company and PG&E Corporation (San Francisco, CA), 2019
Board Member
As a member on the PG&E Boards, including during the on-boarding process, received general information regarding safety programs and culture at the companies, and received more targeted safety training regarding, among other things, hazards and associated mitigations for field work in connection with PG&E's gas and electric operations and power generation.

B. Direct, Supervisorial or Management Level Safety-Specific Work Experience

- Xcel Energy (Denver, CO), 2004 – 2018
Senior Vice President (2011 – 2018); Vice President—Colorado Operations (2009 – 2011); Director, Asset Strategy (2004 – 2009)
As Senior Vice President, led the gas business unit across eight states with 2 million customers. Responsible for both employee and public safety. Member of the Executive Safety Team, which met quarterly with the Corporate Safety VP to review and discuss successes as well as continuous improvement for safety overall. Performance metrics in both areas improved significantly during tenure in both the gas unit and enterprise wide.

Also served as Chair, President and CEO of WestGas InterState, Inc., a FERC-regulated interstate gas pipeline subsidiary of Xcel Energy.

As VP of Colorado Operations, responsible for gas operations within the state of Colorado. Began the first in-line inspection (pigging) program at Xcel Energy in

Colorado in 2008. Successfully led efforts to develop a distribution asset renewal program, focused on leak prone pipe (cast iron, bare steel, and early polymers)—obtaining support from both senior executives and the Colorado PUC. This program was later rolled into Xcel Energy’s Distribution Integrity Management Program (DIMP). Met regularly with field employees—at job sites and service centers—discussing safety and challenges.

As Director of Asset Strategy, led the development of integrity management programs, which are developed to reduce the risk of and improve the safety of key infrastructure. Included developing programs for performing maintenance, hydrostatic pressure testing, well testing, and processes for testing and replacing assets. Also improved record keeping and data processes across a number of areas, including asset data, maintenance records, and inspection information. Developed a data-driven risk management system in partnership with various state public utility commissions to assess risk, and set acceptable risk levels. Was a member of the Executive Safety Team from 2011 to retirement in 2018. Met quarterly to discuss safety progress, culture change, and safety culture issues. Provided direction to the Corporate Safety department on the effectiveness or specific safety programs. Regularly met with line-level employees and the technical staff, along with the safety leadership team, to discuss current safety issues and potential safety issues. Attended quarterly employee driven safety meetings, where employees would raise safety issues or concerns. Workshopped solutions to quickly implement responses to those concerns together with employees and the safety leadership team.

Worked with the Corporate Vice President for Safety to set annual safety performance targets, review program effectiveness, discuss enterprise-wide as well as gas-specific safety concerns, and identify best practices at peer firms. Also worked closely with the Xcel Energy Board of Directors, particularly the Safety and Operational Committee, to discuss gas asset risks and safety culture, safety management systems, and related topics.

In addition to the regular quarterly meetings on the Safety Executive Team, and quarterly employee-led safety meetings, met monthly with gas leaders across the enterprise from 2012 to 2018 to discuss employee and public safety issues. Focus was on close calls/near misses, incidents where employees had failed to follow safety procedures, safety management systems, and effectively implementing “change management.” Began implementation of American Petroleum Institute Recommend Practice 1173, concerning the development of an Enterprise Safety Management System. Completed the initial analysis and stages or implementation during tenure.

- Colorado Interstate Gas Company (Colorado Springs, CO), 1984-2003
Variety of positions, including Engineer to Director.

Experience includes design, operations, strategic planning, mid-stream operations, supply management and regulatory (FERC). All leadership positions included responsibility for safety of the employees and public around system infrastructure. Member of the leadership team during the implementation of one of the first comprehensive In-line Inspection (ILI) programs in the country—now an industry standard.

- Gold Shovel Association (Tempe, AZ), January 2019 to Present
Executive Director
Lead non-profit organization aimed at reducing damage to underground infrastructure, including, gas, electric, water, and telecommunications infrastructure, during excavations. Companies that participate have seen significant reductions in the damage caused during excavations. PG&E and the City of Sacramento are members of the Association.

C. Safety-Specific Board of Directors Experience

- American Gas Association Operations Management Committee (Washington, D.C.), 2009 – 2018
Executive Committee Member, Operations Management Committee Chair (2017)
Group meets regularly to discuss overall gas operations and safety-specific issues, including public safety, worker safety, and cyber-security. Group consists of senior industry leaders representing about 45 companies across the nation, representing the majority of customers and assets in the gas industry. Participated in meetings in the aftermath of the San Bruno tragedy and other incidents to develop proactive industry positions on improving safety and operations. Also regularly attended annual Executive Safety Summits, focusing on industry hazards, safety management systems, safety culture, interacting with local emergency responders, worker safety, and damage prevention. Participated in the AGA Peer Review program—with Xcel Energy being reviewed in 2015. As part of that commitment/participation, acted as the Executive peer reviewer for ConEd. The program is a one-week intense review of a company's programs around safety and operations, including employee interviews and site visits. At the end of the week, the Executive peer reviewer provides the company with feedback on leading practices as well as opportunities for improvement.
- Department of Transportation Gas Pipeline Advisory Committee (GPAC) (Washington, D.C.), 2014 – 2018
Member
The GPAC is an integral part of the process for making changes to the federal safety regulations for gas pipelines. It includes representatives from industry, government and the public. During tenure on the GPAC, the group discussed regulatory updates/changes to a wide variety of safety regulations including pipeline integrity management (transmission and distribution), plastic piping, construction inspection, damage prevention, management of change Operator Qualification, and record keeping. Also discussed and provided guidance on the

implementation of congressional mandates passed in the wake of the San Bruno tragedy. Participated in a task force aimed at reducing barriers to implement pipeline safety management systems (SMS). Worked with industry groups and individual companies to assess SMS adoption and implementation status, and assess impediments to rapid implementation.

- Dynamic Risk (Calgary, Canada), December 2018 – present
Consultant and Independent Panel Member
The Massachusetts Department of Utilities retained Dynamic Risk to perform an assessment of the safety and integrity of gas infrastructure within the state of Massachusetts after the Merrimack Valley event in September, 2018. As an Independent Review Panel member, reviewed 11 companies—including investor-owned utilities, privately-owned providers, and municipal utilities—including plans and programs, Operations & Maintenance manuals, work procedures, and overall operations. Phase 1 is complete and the report is available online. Phase 2 is underway and will include worksite visits and further discussions around worker procedures, integrity programs, and overall effectiveness of programs. The evaluation is based on the “Plan/Do/Check/Act” cycle, which is an integral part of safety management systems. Phase 2 is expected to be complete in late 2019.

D. Other Previous and Current Board Positions

- Hoffman Southwest (Orange County, CA), 2018 – Present
Independent Director, Audit Committee Member
- Colorado Oil & Gas Association (Denver, CO), 2010 – 2018
Director
- Engineering Advisory Council—College of Engineering, Colorado University, Boulder (Boulder, CO), 2016 – 2018
Member
- Building Opportunity Through Leadership & Diversity (BOLD) —College of Engineering, Colorado University, Boulder (Boulder, CO), 2012 – 2015
Advisory Council Member
- Public Education and Business Coalition (PEBC) (Denver, CO), 2010 – 2014
Member of the Finance Committee
- Junior Achievement of Southern Colorado (Colorado Springs, CO), 1990 – 2002
Board Member, Member of Strategic Planning Committee

E. Other Current Professional Commitments

- N/A

SAFETY CULTURE OII COMPLIANCE FILING EXHIBIT

Fred J. Fowler

A. Safety-Specific Education and Training

- Pacific Gas and Electric Company & PG&E Corporation (San Francisco, CA), 2012 – Present
Board Member
As a member on the PG&E Boards, received safety trainings on topics appropriate for Board-level oversight of safety, including presentations from nationally recognized safety experts from outside PG&E, in addition to regular briefings regarding PG&E safety programs, progress, and culture. The safety trainings included presentations by Todd Conklin on a variety of topics related to safety, including safety culture, safety systems, safety leadership and governance, and identifying safety problems and solutions (December 20, 2017; April 16, 2018; May 23, 2018; and December 11, 2018). Mr. Conklin is a Senior Advisor for Organizational and Safety Culture at Los Alamos National Laboratory and a nationally recognized expert in organizational safety culture.

B. Direct, Supervisorial or Management Level Safety-Specific Work Experience

- Over a 20 year career leading various organizations involving natural gas, natural gas liquids, and electric operation units, worked closely with management teams to develop, monitor and make adjustments for improvements to their safety programs. These organizations have consistently achieved top quartile and top decile safety performance as measured against industry peer companies.
- Spectra Energy Corp. (Houston, TX), 2006 – 2009
President and CEO
Responsible for overall financial and operating results of all Spectra Energy assets. During that period, every business unit achieved top quartile or better safety performance as measured by their various industry association's safety indexes.
- Duke Energy (Charlotte, NC), 2002 – 2006
President and COO
As Chief Operating Officer, was responsible for the overall operating results of all the businesses. Between 2002 and 2006, all of Duke Energy's various businesses achieved top quartile safety performance in each of their business lines versus industry peers.
- Trunkline Gas Co. (Houston, TX), 1991-1993
President with responsibility for overall operations, including safety, and financial results of the company, which was an interstate natural gas pipeline system transporting gas from the U.S. Gulf Coast to the upper Midwest industrial market.

- Texas Eastern Transmissions Company (Houston, TX) 1994 – 1998
President with responsibility for overall operations, including safety, and financial results of the company, which was a major interstate natural gas pipeline transporting gas from the U.S. Gulf Coast to Northeast U.S. markets.
- Duke Energy Corporation (Houston, TX), 1998 – 2002
Group President of Transmission for Duke Energy Corp. responsible for overall operations, including safety, and financial results for all of the company's interstate gas pipelines including the previously named pipelines, as well as:
 - Panhandle Eastern Pipeline Company (Houston, TX)
An Interstate natural gas pipeline delivering midcontinent gas reserves to the upper Midwest residential and industrial markets.
 - Algonquin Gas Transmissions Company (Boston, MA)
An interstate gas pipeline serving the New England market.
 - West Coast Transmissions Company (Calgary, Canada)
A Canadian natural gas pipeline delivering British Columbia and Alberta gas reserves to Western and Midwest U.S., Central, and Eastern Canadian markets.
 - DCP Midstream Partners (Denver, CO)
The largest processor of natural gas in the U.S. and a natural gas gatherer and transporter and marketer of natural gas and natural gas liquids.

C. Safety-Specific Board of Directors Experience

- PG&E Corporation and Pacific Gas and Electric Company Safety and Nuclear Oversight Committees (2017 – present); PG&E Corporation Nuclear, Operations, and Safety Committee (2012 – 2017)
The PG&E Corporation and Pacific Gas and Electric Company Safety and Nuclear Oversight Committees (and before that, the PG&E Corporation Nuclear, Operations, and Safety Committee) oversee matters relating to safety, operational performance, and compliance issues related to Pacific Gas and Electric Company's nuclear, generation, gas and electric transmission, and gas and electric distribution operations and facilities ("Operations and Facilities"), including (i) principal risks arising out of the Operations and Facilities, the process used by management to analyze and identify these risks, and the effectiveness of programs to manage or mitigate these risks; (ii) Pacific Gas and Electric Company's goals, programs, policies, and practices with respect to promoting a strong safety culture; and (iii) periodically visiting Pacific Gas and Electric Company's nuclear and other operating facilities.
- Encana Corporation (Calgary, Canada), 2010 – Present
Corporate Responsibility, Environmental, Health and Safety Committee

Responsible for oversight of safety performance, environmental impact, and promoting good corporate citizenship. Encana rated as a top decile Safety Performer for the past two years according to the Canadian Association of Petroleum Producers and American Exploration & Production Council Safety Indexes.

- Spectra Energy Partners LLP (Houston, TX), 2008 – 2017
Chair of the Board
Oversight responsibility for operations, including safety. This company had top decile or top quartile performance during that period for Large Interstate Pipeline Companies as measured by the Interstate Natural Gas Association of America's safety index.
- DCP Midstream Partners LP (Denver, CO), 2007 – Present
Chair of the Board (2007 – 2009); Board Member (2015 – Present); Audit Committee (2015- Present)
During the past two years DCP Midstream Partners has had the top safety rating for Large Midstream Companies as measured by the Gas Processor's Association Safety Index.
- Spectra Energy Corp. (Houston, TX), 2006 – 2009
Board Member, President and CEO
Spectra Energy was one of the major North American Interstate pipeline companies transporting natural gas from all major U.S. and Canadian producing areas to natural gas markets in the Northwest, Midwest and the East Coast U.S. markets as well as Central and East Coast markets in Canada. Also owned 50% of DCP Midstream, which is the largest natural gas processor in the U.S. as well as a natural gas and natural gas liquids transporter and marketer. Safety was a major focus at every level, including at the board, and among senior management.
- Chair of the Pipeline Safety Task Force of the Interstate Natural Gas Association of America (Washington, D.C.), 1998 – 2000.
The Pipeline Safety Task Force of the Interstate Natural Gas Association was established to improve security practices in the industry, and improve inter-governmental coordination to enhance safety.
- TEPPCO Partners, LP (Houston, TX), 1998 – 2003
Vice Chairman of the Board
TEPPCO operated an interstate pipeline system delivering refined petroleum products from the Gulf Coast to Northeast U.S. markets. Board has oversight responsibility for all operations, including safety.
- The Gas Research Institute (Chicago, IL), 1997 – 2002
Board Member
Responsible for the governance of a federal government formed research and development group focused on new technologies for the natural gas industry.

D. Other Previous and Current Board Positions

- Arts and Science Council of Charlotte North Carolina, 2002 – 2006
- Interstate Natural Gas Pipeline Association (Washington, D.C.), 1998 – 2005
Board Member, Chairman of the Board (2003)
- United Way of Houston, 1996 – 2002
- Houston Partnership (Houston Chamber of Commerce), 1998 – 2001, 2006 – 2008.

E. Other Current Professional Commitments

- N/A

SAFETY CULTURE OII COMPLIANCE FILING EXHIBIT

William D. Johnson

A. Safety-Specific Education and Training

- Reactor Technology Course for Utility Executives, Massachusetts Institute of Technology (Cambridge, MA), 2005
Completed a three-week intensive course for nuclear executives without a background in nuclear technology that covers critical safety functions in nuclear operations, including training on nuclear safety and cultivating a strong safety culture.
- Recurrent internal trainings on workplace safety, nuclear safety, safety culture, OSHA standards, and cyber-security from 1992 to present as a utility employee at:
 - Carolina Power & Light (Raleigh, NC), 1992 – 2000
 - Progress Energy, Inc. (formerly Progress Energy Service Company) (Raleigh, NC), 2000 – 2012
 - Tennessee Valley Authority (Knoxville, TN), 2013 – 2019
- Pacific Gas and Electric Company and PG&E Corporation (San Francisco, CA), 2019
Board Member
As a member on the PG&E Boards, including during the on-boarding process, received general information regarding safety programs and culture at the companies, and received more targeted safety training regarding, among other things, hazards and associated mitigations for field work in connection with PG&E's gas and electric operations and power generation.

B. Direct, Supervisorial or Management Level Safety-Specific Work Experience

- Tennessee Valley Authority (Knoxville, TN), 2013 – 2019
President and CEO
Responsible for safety performance and safety culture at every level of the organization. Tennessee Valley Authority was a top performer in safety metrics during tenure. As President and CEO, oversaw the implementation of the Tennessee Valley Authority's safety programs.
- Progress Energy, Inc. (Raleigh, NC), 2000 – 2012
Chairman, President and CEO (2007 – 2012); President and COO (2005 – 2007); President, Energy Delivery (2004 – 2005); President and CEO Officer of Progress Energy Service Company (2002 – 2003); Executive Vice President and General Counsel of Progress Energy Service Company (2000 – 2002)
As CEO of Progress Energy Service Company, had management oversight over safety functions, and responsibility for safety training. As President of Energy Delivery, was directly responsible for the safety of transmission and distribution functions. Subsequently, as COO and later CEO, had responsibility for the safety

performance of the entire organization. Progress Energy was a top performer in safety performance during tenure as CEO. As a senior executive, oversaw the development and implementation of Progress Energy's safety programs and performance.

C. Safety-Specific Board of Directors Experience

- Institute of Nuclear Power Operations (INPO) (Atlanta, GA), 2007 – 2012, 2013 – 2019
Board Member
INPO is dedicated to promoting safety and safety culture in nuclear operations in the United States. INPO facilitates sharing best practices among operators, conducts site inspections and reviews of peer firm facilities, and provides training and accreditation for nuclear operators. As a board member, oversaw the safety and safety culture programs at INPO, which in turn are implemented across the entire U.S. commercial nuclear fleet.
- World Association of Nuclear Operators (WANO) (Atlanta, GA), 2015 – 2019
Atlanta Centre Regional Governing Board, Chair
WANO's mission is to promote and ensure excellence in safety and safety culture in nuclear operations worldwide. As a board member, oversaw safety culture and safety programs that were implemented across the global nuclear fleet.
- Nuclear Electric Insurance Limited (NEIL) (Wilmington, DE), 2008 – 2012, 2015 – 2019
Board Member
NEIL insures domestic and international nuclear utilities for the costs associated with interruptions, damages, decontaminations, and related nuclear risks. It is a captive insurance company of the nuclear industry that also focuses on best practices in safety and asset management. As a board member, oversaw the development of NEIL's safety and risk assessment programs.
- Progress Energy, Inc. (Raleigh, NC), 2007 – 2012
Board Member
Reviewed safety and performance metrics as a member of the board.

D. Other Previous and Current Board Positions

- North Carolina Chamber of Commerce (Raleigh, NC), dates of service unknown
Board Member, Chair, dates of service unknown
- University of North Carolina Environmental Program (Chapel Hill, NC), dates of service unknown
Board of Visitors, Member

- Kenan Institute for Ethics at Duke University (Durham, NC), dates of service unknown
Advisory Board, Member
- Marbles Kids Museum (Raleigh, NC), dates of service unknown
Chair
- Frankie Lemmon Foundation, Inc. (Raleigh, NC), dates of service unknown
Board Member
- Golden Leaf Foundation (Rocky Mount, NC), dates of service unknown
Board Member
- Edison Electric Institute (Washington, D.C.), 2008 – 2012
Vice Chair, dates of service unknown
- Nuclear Energy Institute (Washington, D.C.), dates of service unknown
Vice Chair, dates of service unknown
- The Howard Baker Center for Public Policy (Knoxville, TN), dates of service unknown
Board Member
- Rex Hospital Trustee (Raleigh, NC), dates of service unknown
Trustee

E. Other Current Professional Commitments

- N/A

SAFETY CULTURE OII COMPLIANCE FILING EXHIBIT
Michael J. Leffell

A. Safety-Specific Education and Training

- Pacific Gas and Electric Company and PG&E Corporation (San Francisco, CA), 2019
Board Member
As a member on the PG&E Boards, including during the on-boarding process, received general information regarding safety programs and culture at the companies, and received more targeted safety training regarding, among other things, hazards and associated mitigations for field work in connection with PG&E's gas and electric operations and power generation.

B. Direct, Supervisorial or Management Level Safety-Specific Work Experience

- N/A

C. Safety-Specific Board of Directors Experience

- N/A

D. Other Previous and Current Board Positions

- Compton Petroleum (Calgary, Canada), 2010 – 2011
Board Member
- Genco Shipping & Trading Limited (New York, NY), 2014 – 2016
Board Member; Special Committee Member (2015 – 2016)
- Clark University (Worcester, MA), 2002 – 2012
Trustee
- The Leffell School (previously The Solomon Schechter School of Westchester) (Hartsdale, NY), 1996 – Present
Lifetime Trustee, President Emeritus of the Board of Trustees
- Jewish Institute for National Security of America (JINSA) (Washington, D.C.), 2014 – Present
Director
- *Commentary* Magazine, 2012 – Present
Trustee

E. Other Current Professional Commitments

- N/A

SAFETY CULTURE OII COMPLIANCE FILING EXHIBIT
Kenneth Liang

A. Safety-Specific Education and Training

- Pacific Gas and Electric Company and PG&E Corporation (San Francisco, CA), 2019
Board Member
As a member on the PG&E Boards, including during the on-boarding process, received general information regarding safety programs and culture at the companies, and received more targeted safety training regarding, among other things, hazards and associated mitigations for field work in connection with PG&E's gas and electric operations and power generation.

B. Direct, Supervisorial or Management Level Safety-Specific Work Experience

- N/A

C. Safety-Specific Board of Directors Experience

- N/A

D. Other Previous and Current Board Positions

- Tribune Media (Chicago, IL), 2013 – 2015
Compensation Committee
- STORE Capital (Scottsdale, AZ), 2012 – 2016
Governance Committee
- Chassix (Wixom, MI), 2016 – 2018
Compensation Committee
- Excel Maritime (Athens, Greece), 2014 – 2018
Chair of the Board
- Pulse Electronics (San Diego, CA), 2015 – 2018
Compensation Committee
- Flintridge Preparatory School (Flintridge, CA), 2012 – 2018
Strategic Planning Committee

E. Other Current Professional Commitments

- N/A

SAFETY CULTURE OII COMPLIANCE FILING EXHIBIT
Dominique Mielle

A. Safety-Specific Education and Training

- Pacific Gas and Electric Company and PG&E Corporation (San Francisco, CA), 2019
Board Member
As a member on the PG&E Boards, including during the on-boarding process, received general information regarding safety programs and culture at the companies, and received more targeted safety training regarding, among other things, hazards and associated mitigations for field work in connection with PG&E's gas and electric operations and power generation.

B. Direct, Supervisorial or Management Level Safety-Specific Work Experience

- N/A

C. Safety-Specific Board of Directors Experience

- N/A

D. Other Previous and Current Board Positions

- Anworth Mortgage Corporation (Los Angeles, CA), 2018 – Present
Compensation Committee Chair; Audit Committee Member; Nominating and Governance Committee Member
- Studio City International (Macau), 2018 – Present
Nominating and Governance Committee Chair; Compensation Committee Member; Audit and Risk Committee Member
- JP Getty Museum (Los Angeles, CA), 2014 – Present
Painting Conservation Council
- Stanford Business School Trust (Palo Alto, CA), 2013 – 2017
Absolute Return Committee Chair

E. Other Current Professional Commitments

- N/A

SAFETY CULTURE OII COMPLIANCE FILING EXHIBIT
Meridee A. Moore

A. Safety-Specific Education and Training

- Pacific Gas and Electric Company & PG&E Corporation (San Francisco, CA), 2019
Board Member
As a member on the PG&E Boards, including during the on-boarding process, received general information regarding safety programs and culture at the companies, and received more targeted safety training regarding, among other things, hazards and associated mitigations for field work in connection with PG&E's gas and electric operations and power generation.

B. Direct, Supervisorial or Management Level Safety-Specific Work Experience

- N/A

C. Safety-Specific Board of Directors Experience

- Right to Play International (Toronto, Canada), 2004– 2018
Governance Chair (2011 – 2014); Human Resources Committee (2015 – 2017)
Right to Play International is a non-governmental humanitarian organization providing educational and enrichment activities to over 1 million disadvantaged children every week across 15 countries in the Middle East, Africa, and Asia. Most programs are in war zones, refugee camps, and other areas ravaged by conflict, disease, or climate change. Oversaw development and implementation of a comprehensive child protection policy and employee and volunteer training protocols for programs in schools, refugee camps, and other community centers. These training programs and protocols are risk-based, not compliance-based, and prioritize buy-in from all stakeholders.

D. Other Previous and Current Board Positions

- Blackrock Capital Investment Corp. (New York, NY), 2017 – Present
Independent Director; Governance and Compensation Committee; Audit Committee
- Fiduciary Counseling Corporation (St. Paul, MN), 2018 – Present
Director, Investment Advisory Board
- NorthStar Capital Investment Corp., parent of Morgans Hotel Group, 2005 – 2007
Director
- AMF Bowling Worldwide (Mechanicsville, VA) 2001 – 2003
Director; Chair Executive Committee; Compensation Committee

- NextGen Climate America (San Francisco, CA), 2014 – Present
Board Member
- Peer Health Exchange (San Francisco, CA), 2018 – 2019
Governance Committee, National Board
- Family Independence Initiative (Oakland, CA), 2018 – 2019
Development Committee
- University of Colorado, Dean’s Advisory Board (Boulder, CO), 2017 – Present
Diversity and Inclusion Committee
- Grace Cathedral (San Francisco, CA), 2011 - 2017
Development Committee (2012 - 2014); Investment Committee (2013 – 2017;
Chair, 2015 – 2017)
- San Francisco University High School (San Francisco, CA), 2007 – 2013
Finance Committee (2007 – 2012); Committee on Trustees (2007 – 2008);
Investment Committee (2012 – 2013)
- Boys and Girls Club of San Francisco (San Francisco, CA)
Trustee Committee (2004 – Present); Endowment Trust Committee (2008 – 2011)
- Yerba Buena Center for the Arts (San Francisco, CA), 2002 - 2008
Governance Committee, Chair
- Marin Country Day School (Marin, CA), 2002 – 2005
Development Planning Committee (2002 – 2005); Campaign Steering Committee
(2002 – 2005); Finance Committee (2002 – 2003; 2004 – 2005 Chair; 2005 –
2006); Investment Committee, Chair (2005 – 2006)
- Yale Law School Fund Board (New Haven, CT), 1998 – 2002
Member

E. Other Current Professional Commitments

- Watershed Asset Management, LLC (San Francisco, CA), 2002 – Present
CEO and Founder

SAFETY CULTURE OIL COMPLIANCE FILING EXHIBIT

Eric D. Mullins

A. Safety-Specific Education and Training

- Pacific Gas and Electric Company & PG&E Corporation (San Francisco, CA), 2016 – Present
Board Member
As a member on the PG&E Boards, received safety trainings on topics appropriate for Board-level oversight of safety, including presentations from nationally recognized safety experts from outside PG&E, in addition to regular briefings regarding PG&E safety programs, progress, and culture. The safety trainings included presentations by Todd Conklin on a variety of topics related to safety, including safety culture, safety systems, safety leadership and governance, and identifying safety problems and solutions (December 20, 2017; April 16, 2018; May 23, 2018; and December 11, 2018). Mr. Conklin is a Senior Advisor for Organizational and Safety Culture at Los Alamos National Laboratory and a nationally recognized expert in organizational safety culture.

B. Direct, Supervisorial or Management Level Safety-Specific Work Experience

- Lime Rock Resources (Houston, TX), 2005 – Present
Co-Chief Executive Officer & Managing Director
Leads a company that operates oil and gas facilities, with responsibility for safe operations for a workforce of over 200 full-time employees as well as numerous independent contractors. Designated a safety training program for all field employees, and implemented a new employee safety training program. Established monthly safety meetings to discuss work conditions, consider safety innovations, and reinforce workplace safety culture.

C. Safety-Specific Board of Directors Experience

- PG&E Corporation and Pacific Gas and Electric Company Safety and Nuclear Oversight Committees (2017 – present); PG&E Corporation Nuclear, Operations, and Safety Committee (2017)
The PG&E Corporation and Pacific Gas and Electric Company Safety and Nuclear Oversight Committees (and before that, the PG&E Corporation Nuclear, Operations, and Safety Committee) oversee matters relating to safety, operational performance, and compliance issues related to Pacific Gas and Electric Company's nuclear, generation, gas and electric transmission, and gas and electric distribution operations and facilities ("Operations and Facilities"), including (i) principal risks arising out of the Operations and Facilities, the process used by management to analyze and identify these risks, and the effectiveness of programs to manage or mitigate these risks; (ii) Pacific Gas and Electric Company's goals, programs, policies, and practices with respect to promoting a strong safety culture; and (iii) periodically visiting Pacific Gas and Electric Company's nuclear and other operating facilities.

- Anadarko Petroleum Company (The Woodlands, TX), 2012 – Present
Audit Committee Chair
Regularly review safety data, and safety performance metrics for an oil and natural gas exploration business. During tenure, Anadarko has maintained a company-wide focus on safety and achieved industry-leading safety performance as measured by the number of total recordable incidents per 100 workers. Board members are responsible for setting operational, financial, and safety goals.

D. Other Previous and Current Board Positions

- Baylor College of Medicine (Houston, TX), 2016 – Present
Board Member
- LRR Energy, LP (Houston, TX), 2011 – 2015
Chair of the Board, Co-CEO
- Wheeler Avenue Baptist Church (Houston, TX), 2015 – Present
Trustee

E. Other Current Professional Commitments

- N/A

SAFETY CULTURE OII COMPLIANCE FILING EXHIBIT
Kristine M. Schmidt

A. Safety-Specific Education and Training

- Northern States Power Company (Minneapolis, MN), 1992 – 2000
Manager, Wholesale Market Services (1992 – 2000)
Director, Gas Sales, Marketing & Business Development (1997 – 2000)
Completed annual required employee safety trainings. Participated in regularly scheduled “safety moments”—which were safety guides for work performed throughout the company including environmental, work area, moving vehicle and office hazards—and received regular safety performance updates from field and office managers detailing results and actions for improvement. From 1997 to 2000, as a member of senior management, attended safety trainings with crews and office personnel during regularly scheduled safety meetings.
- Federal Energy Regulatory Commission (FERC) (Washington, D.C.), 2003 – 2006
Technical Advisor to FERC Commissioner Nora Mead Brownell
Received trainings on safety issues related to hydroelectric assets, liquefied natural gas facilities, cyber-security, and pipelines. Also received Top Secret briefings on cyber-security and critical infrastructure. Attended meetings with the Nuclear Regulatory Commission on nuclear security.
- Xcel Energy (Minneapolis, MN), 2006 – 2009
Director, Federal Regulatory Affairs
Director, Transmission Business Development
Completed annual required employee safety trainings. Participated in monthly “safety moments” and received regular safety updates on company and contractors’ performance. Received regular and annual safety training, as was mandatory under the company’s safety compliance program.
- ITC Great Plains, LLC (Topeka, KS), 2012 – 2015
President, and Vice President of ITC Holdings, Inc.
Completed annual safety training required for all employees. Participated in monthly “safety moments” and received regular safety performance updates on company and contractors’ performance. Also engaged in weekly safety discussions with management teams. Substantially all meetings attended began with safety tips, which included safety guidance for work performed throughout the company including environmental, work area, and office hazards.
- Pacific Gas and Electric Company and PG&E Corporation (San Francisco, CA), 2019
Board Member
As a member on the PG&E Boards, including during the on-boarding process, received general information regarding safety programs and culture at the

companies, and received more targeted safety training regarding, among other things, hazards and associated mitigations for field work in connection with PG&E's gas and electric operations and power generation.

B. Direct, Supervisorial or Management Level Safety-Specific Work Experience

- Over 35 years of experience in the energy sector, including senior management positions with operational responsibilities at electric and gas utilities. These roles have involved regular safety training, meeting with line-level crews working on high-voltage transmission lines, and overseeing the development of compliance processes at a major utility.
- Peak Utility Services Group, LLC (Arvada, CO), 2018
CEO
While CEO, had full profit and loss responsibility, operational oversight, and safety, risk management, and compliance accountability for an organization providing repair, replacement, routine maintenance, and upgrade construction services for telecommunications, electric, and natural gas utilities. Attended crew safety meetings, spoke with employees having safety events to discuss lessons learned, and discussed high safety performance as an overarching corporate objective and competitive advantage.
- ITC Great Plains, LLC (Topeka, KS), 2012 – 2015
President, and Vice President of ITC Holdings, Inc.
Attended safety meetings with crews constructing high-voltage transmission lines in Kansas and Oklahoma. Reported on safety issues, safety performance, and safety concerns to the senior executive team, and participated in safety culture and performance discussions with senior executives on a regular basis.
- Xcel Energy (Minneapolis, MN), 2006 – 2008
Director, Federal Regulatory Affairs
Director, Transmission Business Development
As Director of Federal Regulatory Affairs, created and implemented Xcel Energy's first federal compliance program, including compliance with all North American Electric Reliability Corporation mandatory reliability standards, which included physical and cyber-security. Oversaw all federal regulatory filings before FERC. Toured critical bulk power facilities, including power plants, high-voltage transmission lines, substations, control centers, distribution systems, and crew service centers.
- Federal Energy Regulatory Commission (Washington, D.C.), 2003 – 2006
Technical Advisor to FERC Commissioner Nora Mead Brownell
Served as principal technical advisor on energy markets. Areas of expertise included reliability matters, infrastructure sufficiency, and security concerns.

- Northern States Power Company (Minneapolis, MN), 1992 – 2000
Manager, Wholesale Market Services (1992 – 2000)
Director, Gas Sales, Marketing & Business Development (1997 – 2000)
As Director, Gas Sales, Marketing & Business Development, attended monthly senior executive meetings to discuss safety performance and culture. Also participated in weekly discussions and reporting of safety issues, performance, and culture for a gas utility. Approved safety goals, budgets, and targets. Member of the Crisis Response Executive Team formed in response to the December 11, 1998 natural gas explosion in Saint Cloud, MN.

C. Safety-Specific Board of Directors Experience

- N/A

D. Other Previous and Current Board Positions

- Western Energy Imbalance Market Governing Body (CA), 2016 – 2019
Board Member; Chair (2016 – 2017)
- Advancing Women in Energy, Association for Attracting and Retaining Women in Energy (Lansing, MI), 2016 – 2019
- Oklahoma Chamber of Commerce (Oklahoma City, OK), 2012 – 2015
Board Member
- Oklahoma Business Roundtable Member (Oklahoma City, OK), 2013 – 2015
- Kansas Capital Area Red Cross (Topeka, KS), 2013 – 2015
Board Member
- My Sister's Place, Non-Profit Housing Shelter for Domestic Abuse Victims (Washington, D.C.), 2010 – 2012
Board Member; Secretary (2011 – 2012)
- Saint Paul Festival & Heritage Foundation, Saint Paul Winter Carnival (St. Paul, MN), 1998 – 2000
Board Member; Membership Committee Chair (1999 – 2000); Compensation and Performance Review Committee Chair (1998 – 1999); Marketing Committee (1998).
- Gridwise Alliance (Washington, D.C.), 2009 – 2014
Board of Directors (2010 – 2014); Governance Committee (2010 – 2013); Co-Chair State Legislative and Policy Working Group (2009 – 2011).

E. Other Current Professional Commitments

- N/A

SAFETY CULTURE OII COMPLIANCE FILING EXHIBIT

Alejandro D. Wolff

A. Safety-Specific Education and Training

- U.S. Department of State (Washington, D.C.), 1979 – 2013
Career Foreign Service Officer
Received training on guidelines and protocols for protecting the safety of U.S. personnel and facilities in areas affected by natural disasters, conflict, or terrorist threats.
- Board Experience (Albemarle Corporation (Charlotte, NC), 2015 – Present; Versum Materials (Tempe, AZ), 2016 – Present; JetSMART Holdings (Santiago, Chile), 2017 – Present)
Board Member
Each Board receives regular presentations from safety experts, including the chief safety officer and business unit leaders as part of the Board's oversight responsibilities to promote best practices and to establish and encourage strong corporate safety culture and safety management programs at each company.
- Pacific Gas and Electric Company and PG&E Corporation (San Francisco, CA), 2019
Board Member
As a member on the PG&E Boards, including during the on-boarding process, received general information regarding safety programs and culture at the companies, and received more targeted safety training regarding, among other things, hazards and associated mitigations for field work in connection with PG&E's gas and electric operations and power generation.

B. Direct, Supervisorial or Management Level Safety-Specific Work Experience

- United States Consulate (Oran, Algeria), 1980
U.S. Vice Consul
Sole U.S. official on the ground to coordinate the arrival and distribution of first-wave disaster relief supplies and equipment following a 1980 earthquake that killed 2,633 residents, and injured another 8,369 people. Over 25,000 homes were destroyed, leaving over 300,000 people homeless.
- United States Department of State (Washington, D.C.), 1996 – 1998
Deputy Executive Secretary
Participated in government-wide efforts to anticipate, mitigate, and address threats affecting Americans living in high-risk locations overseas. This included coordination with foreign governments and the United States military to arrange for emergency evacuation of civilian personnel following a natural disaster or armed conflict.

- United States Embassy (Cyprus, Greece), 1994 – 1996
Deputy Chief of Mission
Responsible for the safety of U.S. personnel and facilities during a time of heightened military tension between Greece and Turkey. Coordinated with key stakeholders, including local authorities, United Nations Peacekeeping forces, and the U.S. to protect the personal safety of U.S. personnel.
- United States Embassy (Paris, France), 2001 – 2005
Deputy Chief of Mission
Undertook baseline threat and risk assessments, and led implementation of additional safety and security protocols following the September 11, 2001 terrorist attacks. These additional protocols extended to Embassy facilities, U.S. schools and hospitals, and the American community in France as a whole.
- United States Embassy (Santiago, Chile), 2010 – 2013
U.S. Ambassador
Following the 2010 8.8 magnitude earthquake and resulting tsunami, led the assessment of how best to mitigate and minimize consequences to U.S. personnel and facilities from future earthquakes. Working with strict budgetary constraints and competing interests from local, regional, and national authorities, implemented innovative tools to respond to future disasters, including early warning procedures, and a country-wide telecommunications network that could operate when other telecommunication infrastructure was disabled. Set in place evacuation procedures, including for U.S. citizens living in rural or remote parts of the country.

C. Safety-Specific Board of Directors Experience

- Rockwood Holdings (Princeton, NJ), 2014 – 2015
Governance and Nominating Committee, Chair
The Corporate Governance and Nominating Committee was responsible for overseeing health, safety, and environmental policies and practices. This included safety of employees, facilities, and processes at plants in the U.S., Europe, Latin America, and Asia.
- Albemarle Corporation (Charlotte, NC), 2015 – Present
Health, Safety, and Environment Committee, Member; Compensation Committee, Chair (2018 – 2019)
The Health, Safety, and Environment Committee assists the Board in the assessment of health, safety, and environmental and sustainability programs or initiatives for this specialty chemicals company. It is tasked with maintaining the company's reputation as a leader in corporate stewardship, social responsibility, and product sustainability. The Compensation Committee establish metrics and incentives for company executives to promote a strong company-wide safety culture.

- Versum Materials (Tempe, AZ), 2016 – Present
Corporate Governance and Nominating Committee, Chair; Compensation Committee, Member; Lead Director (2017 – Present)
The Corporate Governance and Nominating Committee and Board have oversight responsibilities to ensure safe, sustainable and environmentally sound operations for this specialty electronic materials company. Responsibilities include overseeing compliance with safety laws and regulations, ensuring continual improvement of safety performance, overseeing the design and operation of plants and other facilities to ensure the safety of employees, contractors and the public, and evaluating emerging risks. The Governance and Nominating Committee also establishes both annual and long-term goals for the company's safety initiatives, and reviews progress towards those goals.
- JetSMART Holdings (Santiago, Chile), 2017 – Present
Compensation Committee, Member
The Board oversees the company's safety culture and performance. It focuses on instilling operational safety as a paramount value throughout the organization. The Compensation Committee develops pay plans that incentivize strong safety culture and performance at all levels of the organization.

D. Other Previous and Current Board Positions

- Advisory Board of the Counter Extremism Project (New York, NY), 2016 – Present
Advisory Board Member

E. Other Current Professional Commitments

- N/A