



ADVICE LETTER SUMMARY



ENERGY UTILITY

MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No.:

Utility type:

ELC GAS WATER
 PLC HEAT

Contact Person:

Phone #:

E-mail:

E-mail Disposition Notice to:

EXPLANATION OF UTILITY TYPE

ELC = Electric GAS = Gas WATER = Water
PLC = Pipeline HEAT = Heat

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #:

Tier Designation:

Subject of AL:

Keywords (choose from CPUC listing):

AL Type: Monthly Quarterly Annual One-Time Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #:

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL:

Summarize differences between the AL and the prior withdrawn or rejected AL:

Confidential treatment requested? Yes No

If yes, specification of confidential information:

Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/ access to confidential information:

Resolution required? Yes No

Requested effective date:

No. of tariff sheets:

Estimated system annual revenue effect (%):

Estimated system average rate effect (%):

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected:

Service affected and changes proposed¹:

Pending advice letters that revise the same tariff sheets:

¹Discuss in AL if more space is needed.

Protests and correspondence regarding this AL are **to be sent via email and are due no later than 20 days after the date of this submittal, unless otherwise authorized by the Commission, and shall be sent to:**

California Public Utilities Commission
Energy Division Tariff Unit Email:
EDTariffUnit@cpuc.ca.gov

Contact Name:
Title:
Utility/Entity Name:

Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email:

Contact Name:
Title:
Utility/Entity Name:

Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email:

CPUC
Energy Division Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102

ENERGY Advice Letter Keywords

Affiliate	Direct Access	Preliminary Statement
Agreements	Disconnect Service	Procurement
Agriculture	ECAC / Energy Cost Adjustment	Qualifying Facility
Avoided Cost	EOR / Enhanced Oil Recovery	Rebates
Balancing Account	Energy Charge	Refunds
Baseline	Energy Efficiency	Reliability
Bilingual	Establish Service	Re-MAT/Bio-MAT
Billings	Expand Service Area	Revenue Allocation
Bioenergy	Forms	Rule 21
Brokerage Fees	Franchise Fee / User Tax	Rules
CARE	G.O. 131-D	Section 851
CPUC Reimbursement Fee	GRC / General Rate Case	Self Generation
Capacity	Hazardous Waste	Service Area Map
Cogeneration	Increase Rates	Service Outage
Compliance	Interruptible Service	Solar
Conditions of Service	Interutility Transportation	Standby Service
Connection	LIEE / Low-Income Energy Efficiency	Storage
Conservation	LIRA / Low-Income Ratepayer Assistance	Street Lights
Consolidate Tariffs	Late Payment Charge	Surcharges
Contracts	Line Extensions	Tariffs
Core	Memorandum Account	Taxes
Credit	Metered Energy Efficiency	Text Changes
Curtable Service	Metering	Transformer
Customer Charge	Mobile Home Parks	Transition Cost
Customer Owned Generation	Name Change	Transmission Lines
Decrease Rates	Non-Core	Transportation Electrification
Demand Charge	Non-firm Service Contracts	Transportation Rates
Demand Side Fund	Nuclear	Undergrounding
Demand Side Management	Oil Pipelines	Voltage Discount
Demand Side Response	PBR / Performance Based Ratemaking	Wind Power
Deposits	Portfolio	Withdrawal of Service
Depreciation	Power Lines	

May 24, 2024

Advice Letter No. LSP-0001 (Energy Division)

LS Power Grid California, LLC [ID U-247-E]

Public Utilities Commission of the State of California
Energy Division

Subject: Advice Letter for Approval under Public Utilities Code Section 851, pursuant to General Order No. 173; Grant of Easements to Pacific Gas and Electric Company (“PG&E”)

Purpose:

LS Power Grid California, LLC (“LSP”) submits this Tier 2 advice letter (this “Advice Letter”) for approval by the California Public Utilities Commission (the “Commission”) acting under Public Utilities Code Section 851 and General Order 173 for LSP to enter into and grant two (2) separate grants of easement to Pacific Gas and Electric Company (“PG&E”) over two separate portions of LSP’s property located in Fresno County, California (the “Easements”), both of which Easements relate to and are necessary for the same project as described below. The proposed form(s) of Easements are attached hereto as **Attachment 1A and Attachment 1B.**

LSP submits this Advice Letter in connection with that certain Decision Granting LSP a Permit to Construct its portion of the Gates 500 kilovolt Dynamic Reactive Support Project having a date of issuance of December 21, 2022 (Decision 22-12-048, December 15, 2022) (the “Decision”).

Background:

The Decision grants to LSP a permit to construct (“PTC”) the Orchard Substation, LSP’s portion of the Gates 500 kilovolt (kV) Dynamic Reactive Support Project (the “Gates Project”). The main components of the Gates Project are the Orchard Substation to be constructed by LSP and consisting of two new static synchronous compensator units that will radially connect to the existing, adjacent PG&E Gates Substation, and two new single-circuit overhead 500 kV circuits, approximately 550 feet long, to be constructed by PG&E. The Easements requested to be authorized per this Advice Letter is necessary to allow PG&E to connect the Orchard Substation to PG&E’s Gates Substation.

Per that certain Grant Deed recorded as document number 2023-0026353 recorded in the official records of Fresno County, California on March 24, 2023 (the “Deed”), LSP acquired approximately nineteen acres of real property necessary to complete the construction of the Gates Project per the PTC and Decision.

The requested Easements encumber separate limited portions of the Property as depicted and described in the forms of Easement included as Attachment 1A and as Attachment 1B.

No interference:

LSP has determined that the proposed Easements would not interfere with LSP's operations or LSP's ability to provide safe and reliable utility service. The Easements are in the public interest as the Easements are operationally necessary in order to complete construction of the Gates Project as contemplated by the Decision.

Tribal Lands Policy:

On December 5, 2019, the Commission adopted a policy titled, "Investor-Owned Utility Real Property – Land Disposition - First Right of Refusal for Disposition of Real Property within the Ancestral Territories of California Native American Tribes" (Policy).

Resolution E-5076, effective January 14, 2021, adopted Guidelines to Implement the CPUC Tribal Land Policy (Guidelines). Section 1.3.d of the Guidelines states that "disposition" means the transfer, sale, donation, or disposition by any other means of a fee interest in real property. Therefore, the Easements that are the subject of this Advice Letter are not subject to the Policy.

Contents - General Order 173, Rule 3:

Per General Order 173, Rule 3, LSP provides the following information related to the proposed transaction. The Advice Letter meets the criteria of or otherwise complies with General Order 173 Rule 3, as follows:

- a. Rule 3, Section a.(2): The activity proposed in the transaction will not require environmental review by the Commission as a Lead Agency under the California Environmental Quality Act (CEQA), either because:
 - (1) A statutory or categorical exemption applies (the applicant must provide a Notice of Exemption from the Lead Agency or explain why it believes that an exemption applies), or
 - (2) The transaction is not a project under CEQA (the applicant must explain the reasons why it believes that the transaction is not a project), or
 - (3) Another public agency, acting as the Lead Agency under CEQA, has completed environmental review of the project, and the Commission is required to perform environmental review of the project only as a Responsible Agency under CEQA.

The transaction does not require review by the Commission as a lead agency under CEQA because the Commission, acting as lead agency under CEQA for the Gates Project, issued the Final IS/MND on August 4, 2022, that included PG&E's interconnection facilities.

- b. Rule 3, Section b.: The transaction will not have an adverse effect on the public interest or on the

ability of the utility to provide safe and reliable service to customers at reasonable rates.

The transaction will not have an adverse effect on the public interest or on the ability of LSP (as the utility) to provide safe and reliable service at reasonable rates. Rather, it will enable the completion of the Gates Project consistent with the Decision.

A copy of the Decision is attached hereto as **Attachment 2**.

- c. Rule 3, Section c.: Any financial proceeds from the transaction will be either:
(1) Booked to a memorandum account for distribution between shareholders and ratepayers during the next general rate case or other applicable proceeding for that utility, or
(2) Immediately divided between shareholders and ratepayers based on a specific distribution formula previously approved by the Commission for that utility.

(N/A); the transaction does not require the receipt or request for financial proceeds.

- d. Rule 3, Section d.: If the transaction results in a fee interest transfer of real property, the property does not have a fair market value in excess of \$5 million.

(N/A); this transaction does not involve a fee interest transfer.

- e. Rule 3, Section e.: If the transaction results in a sale of a building or buildings (without an accompanying fee interest transfer of the underlying land), the building(s) does not have a fair market value in excess of \$5 million.

(N/A); this transaction will not result in the sale of a building.

- f. Rule 3, Section f.: If the transaction is for the sale of depreciable assets (other than a building or buildings), the assets do not have a fair market value in excess of \$5 million.

(N/A); this transaction does not involve the sale of depreciable assets.

- g. Rule 3, Section g.: If the transfer is a lease or a lease-equivalent, the total net present value of the lease payments, including any purchase option, does not have a fair market value in excess of \$5 million, and the term of the lease will not exceed 25 years.

(N/A); this transaction does not involve a lease or lease-equivalent.

- h. Rule 3, Section h.: If the transaction conveys an easement, right-of-way, or other less than fee interest in real property, the fair market value of the easement, right-of-way, or other interest in the property does not exceed \$5 million.

Per Section 5.12 of the IA, no monetary compensation is being paid or requested to be paid for the Easements. The fair market value of the Easements is collectively estimated to be between \$0 and \$50,000.

- i. Rule 3, Section i.: The transaction will not materially impact the ratebase of the utility.

This transaction will not materially impact the ratebase of LSP (the utility) as, per Section 5.12 of the IA, no monetary compensation is being paid or requested to be paid for the Easements.

- j. Rule 3, Section j.: If the transaction is a transfer or change in ownership of facilities currently used in regulated utility operations, the transaction will not result in a significant physical or operational change in the facility.

(N/A); this transaction does not involve the transfer or change in ownership of facilities currently used in regulated utility operations.

- k. Rule 3, Section k.: The transaction does not warrant a more comprehensive review that would be provided through a formal Section 851 application.

(N/A); this transaction does not warrant a more comprehensive review that would be provided through a formal Section 851 application because the transaction involves an easement grant that is necessary for the completion of the Gates Project as contemplated by the Decision and that certain Interconnection Agreement dated October 5, 2022 (the "IA").

[end of Rule 3 responses]

Contents - General Order 173, Rule 4:

Per General Order 173, Rule 4, LSP provides the following information related to the proposed transaction:

- a. Rule 4, Section a.: Identity and Addresses of all parties to the proposed transaction.

LSP:

LS Power Grid California, LLC
16150 Main Circle Drive
Suite 310
Chesterfield, MO 63017
Attn: Legal Department
Telephone: (636) 532-2200
Email: cbrandt@lspower.com

PG&E:

Pacific Gas and Electric Company
Attn: Scott Crossfield
Land Planning
3580 East California Ave Fresno, CA 93725
Telephone: (559)-353-4405
Email:
S2CW@pge.com

And:

LS Power Grid California, LLC
16150 Main Circle Drive
Suite 310
Chesterfield, MO 63017
Attn: Project Manager
Telephone: (636) 532-2200
Email: mmilburn@lspower.com

LS Power Grid California, LLC
16150 Main Circle Drive
Suite 310
Chesterfield, MO 63017
Attn: Asset Manager
Telephone: (636) 532-2200
Email: rhohlt@lspower.com

- b. Rule 4, Section b.: A complete description of the Property, including its present location, condition, and use.

The Property is owned by LSP pursuant to the Deed attached hereto as **Attachment 3**. It is zoned for agricultural purposes and is currently an active construction site for the Orchard Substation consistent with the PTC. As of the date of this Advice Letter, Fresno County has not yet assigned a separate APN for the Property. The legal description for the Property is as noted in the Deed.

- c. Rule 4, Section c.: The transferee's intended use of the property.

The main components of the Gates Project are two new static synchronous compensator units that will radially connect to the existing, adjacent PG&E Gates Substation by two new single-circuit overhead 500 kV circuits, approximately 550 feet long. PG&E, as the grantee, would use the Easement area (on the Property) shown in Attachment 1A in order to make this transmission connection and would use the Easement area shown in Attachment 1B for distribution service. Beyond the PG&E 500 kV connection, the intended use of the property is the development, construction, installation and operation of the Orchard Substation consistent with the Decision and IA.

- d. Rule 4, Section d.: A complete description of the financial terms of the proposed transaction.

In connection with the Gates Project, LSP and PG&E have entered into the IA. A copy of the IA is included herein as **Attachment 4**. Pursuant to Section 5.12 of the IA, no monetary compensation is due to or requested by LSP for the Easements.

- e. Rule 4, Section e.: A description of how the financial proceeds of the transaction will be distributed.

There are no financial proceeds as a result of the transaction or Easements. Any administrative fee for preparing the agreement will be properly recorded in accordance with FERC accounting principles.

- f. Rule 4, Section f.: A statement of the impact of the transaction on ratebase (except for advice letter applications filed by telephone corporations subject to URF or which are not subject to rate of return regulation), and any effect on the ability of the utility to serve the public.

This transaction will not materially impact LSP's rate base or affect LSP's ability to provide reliable service to its customers and the public.

- g. Rule 4, Section g.: For sales of real property and depreciable assets, the original cost, present book value, and present fair market value, and a detailed description of how the fair market value was determined (e.g., appraisal).

Not applicable.

- h. Rule 4, Section h.: For leases of real property, the fair market rental value, a detailed description of how the fair market rental value was determined, and any additional information necessary to show compliance with Rule 3 (g) above.

Not applicable.

- i. Rule 4, Section i.: For easements or rights-of-way, the fair market value of the easement or right-of-way and a detailed description of how the fair market value was determined.

N/A; per Section 5.12 of the IA, no monetary compensation is being paid or requested to be paid for the Easements.

- j. Rule 4, Section j.: A complete description of any recent past (within the prior two years) or anticipated future transactions that may appear to be related to the present transaction, such as sales or leases of interests in the same real property or real property that is located near the property at issue or that are being transferred to the same transferee; or for depreciable assets, sales of the same or similar assets or sales to the same transferee.

LSP acquired the Property subject to that certain 105' wide easement granted to PG&E record January 15, 1954 as instrument no. 11759 in Book 3390 Page 380 of the Fresno County, California official records. Other than this existing easement of record, there are no recent past or anticipated future transactions by and between LSP and PG&E that are related to the present transaction.

- k. Rule 4, Section k.: Sufficient information and documentation (including environmental documentation) to show that all of the eligibility criteria stated in Rule 3 above have been met.

This letter sets forth in detail the criteria and responses for Rule 3 above.

- l. Rule 4, Section l.: The filing utility may submit additional information to assist in the review of the advice letter, including recent photographs, scaled maps, drawings, etc.

The proposed Easements provided in Attachment 1A and Attachment 1B to this letter includes a survey plat identifying the location of the proposed easement areas.

- m. Rule 4, Section m.: Environmental Information.

Section m.(1). The transaction does not require CEQA review by the Commission as lead agency. The Commission, acting as lead agency under CEQA for the Gates Project, issued the Final IS/MND on August 4, 2022. The work, improvements, and operations of PG&E contemplated to be installed within each of the Easements, respectively, is part of the Final IS/MND issued on August 4, 2022.

[end of Rule 4 responses]

Contents - General Order 173, Rule 5:

Notification and service of the advice letter shall be made in accordance with Rule 5 of General Order 173, and General Order 96-B. As this is LSP's first Advice Letter, there is no existing General Order 96-B service list.

Service of this Advice Letter is made to those recipients listed as cc's below.

Scott Crossfield, PG&E
Jo Lynn Lambert, PG&E
Sarah Kozal, CAISO
Molly Sterkel, Energy Division, CPUC
Elaine Sison-Lebrilla, CEQA, Energy Division, CPUC

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and/or via U.S. mail to parties shown above. Any requests for service or address changes to the General Order 96-B service list should be directed to LSP at email address: regulatory@lspgridcalifornia.com .

Send all electronic approvals to regulatory@lspgridcalifornia.com

Contents - General Order 173, Rule 6:

Protests: Per General Order 96-B, LSP provides the following information for protests:

Anyone wishing to protest this submittal may do so by letter sent electronically via E-mail, no later than June 12, 2024, which is 20 days after the date of this submittal (General Order 173, Rule 6.a.).

Protests must be submitted to:

CPUC Energy Division
ED Tariff Unit
E-mail: EDTariffUnit@cpuc.ca.gov

The protest shall also be electronically sent to LSP via E-mail at the address shown below on the same date it is electronically delivered to the Commission:

LS Power Grid California, LLC
Regulatory Matters
Email: regulatory@lspgridcalifornia.com

The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name and e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Energy Division (General Order 96-B, Section 3.11).

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

Effective Date - General Order 173, Rule 7:

Pursuant to the review process outlined in General Order 173, Rule 7, LSP requests that this Tier 2 advice letter become effective upon approval by the Commission following the initial 30-day review period.

Sincerely,

/S/ Mark D. Milburn

Mark D. Milburn
Senior Vice President

CC: Scott Crossfield, PG&E
Sarah Kozal, CAISO
Jo Lynn Lambert, PG&E
Molly Sterkel, Energy Division, CPUC
Elaine Sison-Lebrilla, CEQA, Energy Division, CPUC

Enclosure: Advice Letter Summary (Energy Utility Form)

List of Attachments:

Attachment 1A:	Form of Easement (Transmission)
Attachment 1B:	Form of Easement (Distribution)
Attachment 2:	Copy of Decision
Attachment 3:	Copy of Deed
Attachment 4:	Copy of IA

Attachment 1A:

Form of Easement (Transmission)

RECORDING REQUESTED BY AND RETURN TO:

PACIFIC GAS AND ELECTRIC COMPANY
300 Lakeside Drive, Suite 210
Oakland, CA 94612
Attn: Land Rights Library

Location: City/Uninc _____

Recording Fee \$ _____

Document Transfer Tax \$ _____

- This is a conveyance where the consideration and Value is less than \$100.00 (R&T 11911).
- Computed on Full Value of Property Conveyed, or
- Computed on Full Value Less Liens & Encumbrances Remaining at Time of Sale
- Exempt from the fee per GC 27388.1 (a) (2); This document is subject to Documentary Transfer Tax

Signature of declarant or agent determining tax

(SPACE ABOVE FOR RECORDER'S USE ONLY)

LD# 2220-17-10021

EASEMENT DEED

3036-0216 (03-20-083) 5 23 1
Gates 500kV Dynamic Reactive Support Project

LS POWER GRID CALIFORNIA, LLC, A Delaware limited liability company, (“**Grantor**”), in consideration of value paid by PACIFIC GAS AND ELECTRIC COMPANY, a California corporation (“**Grantee**”), the receipt of which is hereby acknowledged, grants to and for the benefit of Grantee a non-exclusive easement for the right to excavate for, construct, reconstruct, replace (of initial or any other size), remove, maintain, inspect, and use poles, towers, and/or other structures (or any combination thereof), with such overhead and underground wires and cables as Grantee deems necessary for the transmission and distribution of electric energy and for communication purposes, and all necessary foundations, footings, crossarms, guys, anchors, underground and overhead ground wires, conduits, manholes, riser pipes and other appliances, fixtures, and appurtenances, together with a right of way, within the easement area as described below, which easement area lying within Grantor's lands situated in the County of Fresno, State of California, described as follows:

Grantor’s lands:

(APN: 075-060-67S Portion)

The parcel of land described and designated Parcel under Exhibit “A” in the deed from JBC Family 1, LLC and others to LS Power Grid California, LLC dated February 3, 2023, and recorded as Document No. 2023-0026353, Fresno County Records.

The easement area is described as follows:

The easement area is more particularly described in EXHIBIT A and shown on EXHIBIT B attached hereto and made a part hereof.

Grantor reserves the right to use the easement area for purposes of designating a fenced-in area within the easement area and erecting a fence around the same with appropriate gates for ingress and egress through the same.

As part of the easement, Grantor further grants to Grantee the right, from time to time, to:

- (a) within the easement area (including within the fenced-in area located within the easement area), to construct, reconstruct, replace (of initial or any other size), remove, maintain, inspect, and use poles, towers, and/or other structures (or any combination thereof), with such overhead and underground wires and cables as Grantee deems necessary for the transmission and distribution of electric energy and for communication purposes, and more specifically, to connect to Grantor's substation;
- (b) trim or to cut down, without Grantee paying compensation, any and all trees and brush now or hereafter within the easement area, and shall have the further right, from time to time, to trim and cut down trees and brush along each side of the easement area which now or hereafter in the opinion of Grantee may interfere with or be a hazard to the facilities installed hereunder, or as Grantee deems necessary to comply with applicable state or federal regulations;
- (c) enlarge, improve, reconstruct, relocate and replace any facilities constructed hereunder with any other number or type of facilities in the original location located within the fenced-in area of the easement area;
- (d) the right to install, maintain and use gates installed by Grantor for ingress and egress within the fenced-in area of the easement area;
- (e) the right to mark the location of the easement area by suitable markers set in the ground; provided that the markers shall be placed in fences or other locations which will not interfere with any reasonable use Grantor shall make of the easement area; and
- (f) the right of ingress and egress within said easement area by means of roads and lanes thereon, if such there be, otherwise by such route or routes as shall occasion the least practicable damage and inconvenience to Grantor

Notwithstanding the foregoing, Grantee covenants and agrees:

- (i) not to fence any portion of the easement area;
- (ii) to repair any damage to the lands caused by Grantee as a result of exercising its right of ingress and egress granted herein; and
- (iii) to indemnify Grantor against any loss and damage which shall be caused by any wrongful or negligent act or omission of Grantee or of its agents or employees

in the course of their employment, provided, however, that this indemnity shall not extend to that portion of such loss or damage that Grantee can demonstrate was caused by Grantor's comparative negligence or willful misconduct.

Grantor reserves the right to use the Easement Area (and permit third parties to use the Easement Area) for any purposes that will not unreasonably interfere with Grantee's full enjoyment of the rights hereby granted; provided, however, that (i) nothing herein shall limit or interfere with Grantor's right to use the Easement Area for purposes necessary or desirable for its own operations as a public utility consistent with that certain Interconnection Agreement dated October 5, 2022 regarding Gates 500 kilovolt Dynamic Reactive Support Project by and between Grantor and Grantee, and (ii) neither Grantor nor Grantee shall:

- (a) place or construct, nor allow a third party to place or construct, any building or other structure that will interfere with the maintenance and operation of Grantee's facilities, or store flammable substances, or drill or operate any well, or construct any reservoir or other obstruction within the easement area that will interfere with the maintenance and operation of Grantee's facilities, or diminish or substantially add to the ground level within the easement area, or construct any other fence that will interfere with the maintenance and operation of the facilities; nor
- (b) deposit, or allow to be deposited, earth, rubbish, debris or any other substance or material, whether combustible or noncombustible, within the easement area, which now or hereafter in the opinion of Grantee may interfere with or be a hazard to the facilities installed hereunder.

This document may be executed in multiple counterparts, each of which shall be deemed an original, but all of which, together, shall constitute one and the same instrument.

The provisions hereof shall inure to the benefit of and bind the successors and assigns of the respective parties hereto, and all covenants shall apply to and run with the land.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the undersigned has executed this Agreement as of the date(s) in the acknowledgements below and to be effective as of the same date.

LS POWER GRID CALIFORNIA, LLC, a
Delaware limited liability company,

By _____
Mark D. Milburn, Senior Vice President

APPROVED AS TO DESCRIPTION

Courtney R. Faulkenberry
PLS 8467

ACKNOWLEDGEMENT

STATE OF MISSOURI)
) **SS.**
COUNTY OF SAINT LOUIS)

I, the undersigned authority, a Notary Public in and for said County in said State, hereby certify that Mark D. Milburn, whose name as Senior Vice President of LS Power Grid California, LLC, a Delaware limited liability company, is signed to the foregoing instrument, and who is known to me, acknowledged before me on this day that, being informed of the contents of said instrument, he, as such officer and with full authority, executed the same voluntarily for and as the act of said limited liability company.

WITNESS under my hand and notarial seal this _____ day of _____, 2023.

Notary Public

My Commission Expires: _____

EXHIBIT "A"

THAT PORTION OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 17 EAST, MOUNT DIABLO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT THEREOF, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST LINE OF SAID SECTION 33, WHICH LIES NORTH 00° 12' 32" EAST, A DISTANCE OF 2,800.00 FEET FROM THE SOUTHEAST CORNER OF SAID SECTION 33, SAID POINT BEING THE SOUTHEAST CORNER OF THAT CERTAIN PARCEL RECORDED MARCH 24, 2023 AS DOCUMENT NO. 2023-0026353 IN OFFICIAL RECORDS;

THENCE NORTH 89° 34' 52" WEST, ALONG THE SOUTH LINE OF SAID PARCEL, A DISTANCE OF 1,320.08 FEET, SAID POINT BEING THE SOUTHWEST CORNER OF SAID PARCEL, SAID POINT BEING THE **TRUE POINT OF BEGINNING**;

THENCE SOUTH 89° 34' 52" EAST, ALONG THE SOUTH LINE OF SAID PARCEL, A DISTANCE OF 410.00 FEET;

THENCE NORTH 00° 12' 32" EAST, PARALLEL TO THE WEST LINE OF SAID PARCEL, A DISTANCE OF 130.00 FEET;

THENCE NORTH 89° 34' 52" WEST, PARALLEL TO THE SOUTH LINE OF SAID PARCEL, A DISTANCE OF 410.00 FEET;

THENCE SOUTH 00° 12' 32" WEST, ALONG THE WEST LINE OF SAID PARCEL, A DISTANCE OF 130.00 FEET TO THE **TRUE POINT OF BEGINNING**.

CONTAINING 1.22 ACRES.

ALL AS SHOWN ON EXHIBIT "B", ATTACHED HERETO AND A PART HEREOF.

THIS DOCUMENT HAS BEEN PREPARED BY ME, OR UNDER MY DIRECTION, IN CONFORMANCE WITH THE PROFESSIONAL LAND SURVEYOR'S ACT.



JOEL RICHARD JOYNER, PLS 8318

5/13/2024
DATE



SECTION 33, T20S, R17E, MDM
JBC FAMILY I, LLC, et. al. PARCEL
APN: 75-060-67S (PORTION)



5/13/2024

105.00' WIDE PG&E UTILITY EASEMENT
RECORDED JANUARY 15, 1954 AS
INSTRUMENT NO 11759 IN BOOK 3390,
PAGE 380 OF OFFICIAL RECORDS

LS POWER GRID CALIFORNIA, LLC
PARCEL DOC 2023-0026353
FRESNO COUNTY RECORDS

N89°34'52"W 1320.08'

LS POWER
PARCEL
BOUNDARY

S00°12'32"W 627.00'

N89°34'52"W
410.00'

130.00'

N0°12'32"E
130.00'

POINT OF COMMENCEMENT

N89°34'52"W 1320.08'

TRUE POINT OF BEGINNING

N00°12'32"E 2800.00'

SECTION 33



SCALE: 1" = 200'

SOUTHEAST CORNER
OF SECTION 33

LEGEND

- LS POWER GRID CALIFORNIA LLC
- PARCEL BOUNDARY
- EASEMENT AREA

GUIDA
550 W. ALLUVIAL AVE, SUITE 109
FRESNO, CA 93711
559.365.7320
WWW.GUIDAINC.COM

Project No. 0523-00196.0001 196.001 EXHIBITS.dwg

EXHIBIT "B"
COUNTY OF FRESNO
STATE OF CALIFORNIA
APRIL 2024

Area, Region or Location: 4
Land Service Office: Fresno
Line of Business: Electric Transmission (42)
Business Doc Type: Easements
MTRSQ: 22.20.17.33.13, 22.20.17.33.12, 22.20.17.33.24, 22.20.17.33.21,
FERC License Number: N/A
PG&E Drawing Number: JL-1370
Plat No.: 20176(Electric) 4295-C4(Gas)
LD of Affected Documents: N/A
LD of Cross Referenced Documents: N/A
Type of interest: Electric Tower Line Easements (2), Electric Pole Line Easements (3),
Communication Easements (6)
SBE Parcel: N/A
% Being Quitclaimed: N/A
Order or PM: 74025461
JCN: 03-20-083
County: Fresno
Utility Notice Number: N/A
851 Approval Application No: ;Decision:
Prepared By: ACMZ
Checked By: CRFJ
Approved By:
Revised by:

Attachment 1B:

Form of Easement (Distribution)

Grantee agrees that on receiving a request in writing, it will at Grantor's expense, survey, prepare and record a "Notice of Final Description" referring to this instrument and setting forth a description of said strips of land.

Grantor further grants to Grantee the right, from time to time, to trim or to cut down, without Grantee paying compensation, any and all trees and brush now or hereafter within said easement area, and shall have the further right, from time to time, to trim and cut down trees and brush along each side of said easement area which now or hereafter in the opinion of Grantee may interfere with or be a hazard to the facilities installed hereunder, or as Grantee deems necessary to comply with applicable state or federal regulations.

Grantor also grants to Grantee the right to use such portion of said lands contiguous to said easement area as may be reasonably necessary in connection with the excavation, construction, reconstruction, replacement, removal, maintenance and inspection of said facilities.

Grantor hereby covenants and agrees not to place or construct, nor allow a third party to place or construct, any building or other structure, or store flammable substances, or drill or operate any well, or construct any reservoir or other obstruction within said easement area, or diminish or substantially add to the ground level within said easement area, or construct any fences that will interfere with the maintenance and operation of said facilities.

Grantor further grants to Grantee the right to apportion to another public utility (as defined in Section 216 of the California Public Utilities Code) the right to excavate for, construct, reconstruct, replace, remove, maintain, inspect, and use the communications facilities within said easement area including ingress thereto and egress therefrom.

Grantor acknowledges that they have read the "Grant of Easement Disclosure Statement", Exhibit "A", attached hereto and made a part hereof.

The legal description herein, or the map attached hereto, defining the location of this utility distribution easement, was prepared by Grantee pursuant to Section 8730(c) of the Business and Professions Code.

This document may be executed in multiple counterparts, each of which shall be deemed an original, but all of which, together, shall constitute one and the same instrument.

The provisions hereof shall inure to the benefit of and bind the successors and assigns of the respective parties hereto, and all covenants shall apply to and run with the land.

Dated: _____, _____.

LS POWER GRID CALIFORNIA, LLC, a
Delaware limited liability company

Name:

Title:

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of _____)

On _____, before me, _____ Notary Public,
Insert name

personally appeared _____

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public (Seal)

CAPACITY CLAIMED BY SIGNER

- Individual(s) signing for oneself/themselves
- Corporate Officer(s) of the above named corporation(s)
- Trustee(s) of the above named Trust(s)
- Partner(s) of the above named Partnership(s)
- Attorney(s)-in-Fact of the above named Principal(s)
- Other _____



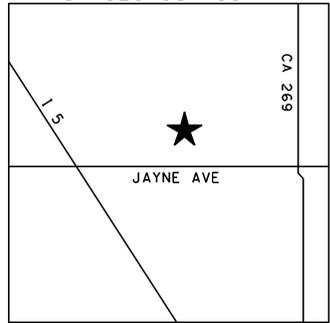
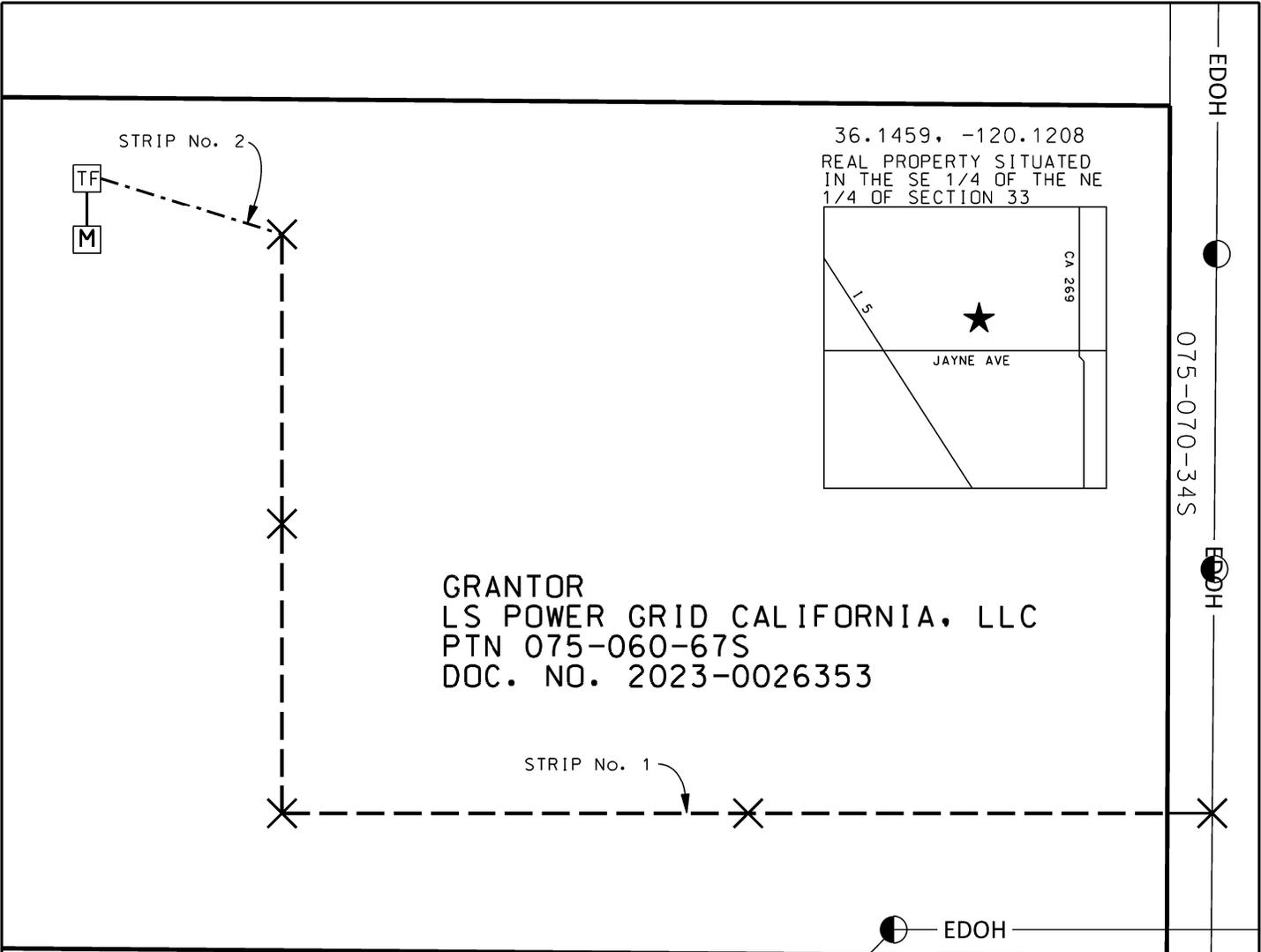
EXHIBIT "A"

GRANT OF EASEMENT DISCLOSURE STATEMENT

This Disclosure Statement will assist you in evaluating the request for granting an easement to Pacific Gas and Electric Company (PG&E) to accommodate a utility service extension to PG&E's applicant. **Please read this disclosure carefully before signing the Grant of Easement.**

- You are under no obligation or threat of condemnation by PG&E to grant this easement.
- The granting of this easement is an accommodation to PG&E's applicant requesting the extension of PG&E utility facilities to the applicant's property or project. Because this easement is an accommodation for a service extension to a single customer or group of customers, PG&E is not authorized to purchase any such easement.
- By granting this easement to PG&E, the easement area may be used to serve additional customers in the area and **may be used to install additional utility facilities**. Installation of any proposed facilities outside of this easement area will require an additional easement.
- Removal and/or pruning of trees or other vegetation on your property may be necessary for the installation of PG&E facilities. You have the option of having PG&E's contractors perform this work on your property, if available, or granting permission to PG&E's applicant or the applicant's contractor to perform this work. Additionally, in order to comply with California fire laws and safety orders, PG&E or its contractors will periodically perform vegetation maintenance activities on your property as provided for in this grant of easement in order to maintain proper clearances from energized electric lines or other facilities.
- The description of the easement location where PG&E utility facilities are to be installed across your property must be satisfactory to you.
- The California Public Utilities Commission has authorized PG&E's applicant to perform the installation of certain utility facilities for utility service. In addition to granting this easement to PG&E, your consent may be requested by the applicant, or applicant's contractor, to work on your property. Upon completion of the applicant's installation, the utility facilities will be inspected by PG&E. When the facility installation is determined to be acceptable the facilities will be conveyed to PG&E by its applicant.

By signing the Grant of Easement, you are acknowledging that you have read this disclosure and understand that you are voluntarily granting the easement to PG&E. Please return the signed and notarized Grant of Easement with this Disclosure Statement attached to PG&E. The duplicate copy of the Grant of Easement and this Disclosure Statement is for your records.



LEGEND

- SUBJECT PROPERTY LINE
- PROPERTY LINE
- STRIP No. 1 (OVERHEAD)
- STRIP No. 2 (UNDERGROUND)
- EDOH EXISTING OVERHEAD LINE
- EXISTING OVERHEAD POLE
- NEW POWER POLE
- METER
- PAD MOUNTED TRANSFORMER



UNLESS OTHERWISE SHOWN ALL COURSES EXTEND TO OR ALONG ALL BOUNDARIES OR LINES

Applicant: LS POWER GRID CALIFORNIA, LLC CHESTERFIELD MO, 63017				SCALE N.T.S.	DATE 10/29/2023
SECTION 33	TOWNSHIP 20S	RANGE 17E	MERIDIAN MDB&M	COUNTY OF: FRESNO	CITY OF: N/A
PLAT MAP REFERENCES 20176 (E)				F.B.: N/A	DR.BY: JYPX
PG&E		FRESNO DIVISION	123356511	35436343-1	AUTHORIZ
				CH.BY: A7HO	DRAWING NO.

Utility Distribution Easement (02/2020)

Attach to LD: 2220-17-10023

Area, Region or Location: 4

Land Service Office: Fresno

Line of Business: Electric Distribution (43)

Business Doc Type: Easements

MTRSQ: 22.20.17.33.12,

FERC License Number: N/A

PG&E Drawing Number: 35436343-1

Plat No.: 20176 (E)

LD of Affected Documents: N/A

LD of Cross Referenced Documents: N/A

Type of interest: Electric Pole Line Easements (3), Electric Underground Easements (4), Utility Easement (86)

SBE Parcel: N/A

% Being Quitclaimed: N/A

Order or PM: 35436343

JCN: N/A

County: Fresno

Utility Notice Number: N/A

851 Approval Application No: N/A ;Decision: N/A

Prepared By: JYPX

Checked By: A7HO

Attachment 2:

Copy of Decision

Decision 22-12-048 December 15, 2022

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of LS Power Grid California, LLC for a Permit to Construct the Gates 500 kV Dynamic Reactive Support Project.

Application 21-02-018

**DECISION GRANTING LS POWER GRID CALIFORNIA, LLC
A PERMIT TO CONSTRUCT THE GATES 500 KILOVOLT
DYNAMIC REACTIVE SUPPORT PROJECT**

Summary

This decision grants LS Power Grid California, LLC’s request for a permit to construct the Gates 500 kilovolt Dynamic Reactive Support Project. With the issuance of the permit to construct, LS Power Grid California, LLC will become a public utility subject to the jurisdiction of the Commission and will be assigned a “U” number for use in filings with and submissions to the Commission.

This proceeding is closed.

1. Background

Pursuant to Section IX(B) of General Order (GO) 131-D of the California Public Utilities Commission (Commission), and Rules 2.1 through 2.5 and 3.1 of the Commission’s Rules of Practice and Procedure (Rules), LS Power Grid California, LLC (LSPGC) seeks a permit to construct (PTC) the Gates 500 kilovolt (kV) Dynamic Reactive Support Project (Gates Project). The main components of the Gates Project are two new static synchronous compensator

units that would radially connect to the existing, adjacent Pacific Gas and Electric Company (PG&E) Gates Substation by two new single-circuit overhead 500 kV circuits, approximately 550 feet long.

The Gates Project is subject to environmental review pursuant to California Environmental Quality Act (CEQA). CEQA requires the lead agency to conduct a review to identify environmental impacts of a proposed project and ways to avoid or reduce environmental damage. In addition, pursuant to GO 131-D and Decision (D.) 06-01-042, the Commission will not approve a proposed project unless its design complies with the Commission's policies governing the mitigation of electromagnetic field (EMF) effects using low-cost and no-cost measures.

On June 10, 2021, the assigned Commissioner issued the Scoping Memo and Ruling in this proceeding and determined the initial issues and schedule of the proceeding.

Based on the initial study (IS) for the Gates Project, the Commission determined thereafter that the preparation of a Mitigated Negative Declaration (MND) was appropriate. The Commission released the Draft IS/MND for public review and comment on April 22, 2022. The public comment period closed on May 23, 2022, and the Commission received no public comments. The Commission issued the Final IS/MND on August 4, 2022.

A prehearing conference (PHC) was held on August 12, 2022, with LSPGC, the Public Advocates Office at the Commission (Cal Advocates) and PG&E in attendance. The topics considered at the PHC included the categorization of the proceeding, the remaining scope of the proceeding, need for evidentiary hearings and the remaining schedule for the proceeding. The First Amended Scoping Memo and Ruling was issued on September 16, 2022, and provided a revised

scope of issues and schedule for the proceeding. The First Amended Scoping Memo and Ruling also directed LSPGC to provide an update related to impact on the Gates Project if the Diablo Canyon powerplant operations are extended past 2025.

LSPGC filed its opening brief on September 16, 2022, and its reply brief on September 26, 2022. No other parties filed briefs. LSPGC filed the update related to the Diablo Canyon powerplant on September 26, 2022. No party filed a response to the update.

On December 2, 2022, LSPGC submitted a request that the proposed decision be added to the December 15, 2022 Commission Meeting voting agenda. LSPGC also requested a change to the comment due dates, indicating that the parties had stipulated to a shortening of the comment period on the proposed decision, as provided by Rule 14.6(b), so that comments would be due on December 8, 2022 and replies to comments on December 13, 2022. On December 2, 2022, a ruling was issued granting the requests to: (1) move the proposed decision from the January 12, 2023 Commission Meeting voting agenda to the December 15, 2022 agenda; and (2) change the due dates of the comments on the proposed decision to December 8, 2022, and replies to comments to December 13, 2022.

2. Issues Before the Commission

The issues to be determined in this proceeding are:

1. Is there any substantial evidence that, with the incorporation of mitigation measures identified in the Mitigation Monitoring, Reporting, and Compliance Program included in the Final MND and IS, the proposed project will have a significant impact on the environment?;
2. Was the Final IS/MND completed in compliance with CEQA?;

3. Does the Final IS/MND reflect the Commission's independent judgment and analysis?;
4. Is the proposed project designed in compliance with the Commission's policies governing the mitigation of EMF effects using low-cost and no-cost measures?; and
5. What are the proposed project's impacts on environmental and social justice communities, including the extent to which it impacts achievement of any of the nine goals of the Commission's Environmental and Social Justice Action Plan?

3. Discussion

3.1. CEQA

To issue a PTC pursuant to GO 131-D, the Commission must find that the Gates Project complies with CEQA. In evaluating whether to approve a proposed project, CEQA requires the lead agency¹ (the Commission in this case) to conduct a review to identify the potential environmental impacts of a proposed project and ways to avoid or reduce environmental damage.

The Commission has the authority to mitigate the potential environmental impacts of a proposed project through the approval of mitigation measures within the Commission's jurisdiction, unless the changes or alterations are infeasible for specific economic, legal, social, technical and other considerations. The mitigation measures are intended to reduce the potential environmental impacts of the proposed project to less-than-significant levels.

¹ The lead agency is the public agency which has the principal responsibility for carrying out or approving a project. The lead agency also must decide whether an EIR or Negative Declaration will be required for the project and prepare the appropriate environmental document. CEQA Guidelines (Cal. Code Regs. Tit. 14, Div. 6, Ch.3) § 15367.

3.1.1. There is No Substantial Evidence that the Gates Project will have a Significant Impact on the Environment after the Incorporation of the Mitigation Measures Included in the Final Initial Study/Mitigated Negative Declaration

As part of its review under CEQA, the lead agency conducts an initial study to identify the environmental impacts of a proposed project and ways to avoid or reduce the environmental damage. If the initial study shows that there is no substantial evidence that a proposed project will have a significant effect on the environment, or if the initial study identifies potentially significant impacts and a proposed project proponent makes or agrees to revisions to the project that will reduce all project-related environmental impacts to less-than-significant levels, then the lead agency must prepare a negative declaration or MND, subject to public notice and the opportunity for the public review and comment.²

CEQA requires that, prior to approving a proposed project, the lead agency consider the MND along with any comments³ received during the public review process, and that the lead agency adopt the MND only if it finds on the basis of the whole record that there is no substantial evidence that the project will have a significant effect on the environment and that the MND reflects the lead agency's independent judgment and analysis.⁴ If the lead agency adopts an MND, CEQA requires that it also adopt a program for monitoring or reporting on the changes or conditions required to mitigate or avoid significant environmental effects.⁵

² CEQA Guidelines §§ 15070-15073.

³ No public comments were submitted.

⁴ CEQA Guidelines § 15074(a)-(b).

⁵ CEQA Guidelines § 15074(d).

Here, we find there is no substantial evidence that the Gates Project will have a significant impact on the environment after the incorporation of the mitigation measures included in the Final IS/MND. Although the Draft IS/MND identified potentially significant impacts during and after construction of the Gates Project, all of these impacts can be mitigated to a less-than-significant level by implementation of Applicant Proposed Measures (APMs) or other mitigation measures.

The Draft IS/MND identified potentially significant impacts in the following areas: aesthetics, agriculture, air quality, biological resources, cultural and tribal cultural resources, geology, soils, paleontology, greenhouse gas emissions, hazards and hazardous materials, hydrology, public services, transportation and traffic and utilities. To avoid or reduce the potential significant impacts listed above, the Draft IS/MND identified mitigation measures and LSPGC also identified APMs.

The APMs reduce a majority of the potentially significant impacts to less-than-significant levels. However, the Draft IS/MND includes additional mitigation measures to reduce potentially significant impacts of the Gates Project to less-than-significant levels in the following resource areas: (1) Biological Resources, (2) Geology, (3) Soils and (4) Paleontology.⁶ Together, these mitigation measures will reduce the impacts to less-than-significant levels.

The Final IS/MND includes the APMs and all mitigation measures recommended in the Draft IS/MND with a few minor modifications.⁷ The

⁶ Final IS/MND at ES-3 to ES-18.

⁷ Some APMs have been superseded by Commission recommended mitigation measures, as described in the Final IS/MND. Non-superseded APMs are considered part of the Proposed Project and, upon adoption of the Final IS/MND, will be part of the Mitigation Monitoring,

Footnote continued on next page.

Mitigation Monitoring, Compliance, and Reporting Program (MMRCP) attached to this decision as Attachment A provides a detailed implementation plan to ensure that the identified mitigation measures and APMs are properly implemented.⁸ LSPGC has committed to implement all APMs and mitigation measures identified for the environmental impacts of the construction and operation of the Gates Project.⁹ With LSPGC's implementation of the identified APMs and mitigation measures as well as compliance with the MMRCP, all project-related environmental impacts would be avoided or reduced to a less-than-significant level with the incorporation of feasible mitigation measures.

Since the circulation of the Draft IS/MND, there have been no "substantial revisions" to the IS/MND, as defined in CEQA Guidelines Section 15073.5.

3.1.2. The Final IS/MND was Completed in Compliance with CEQA

The Commission must determine whether the Final IS/MND was completed in compliance with CEQA.

LSPGC asserts that the Final IS/MND was completed in compliance with CEQA. LSPGC notes that the Final IS/MND describes the CEQA process and the steps taken to comply with those requirements, including extensive public outreach and notice efforts.¹⁰ LSPGC further contends that the Commission prepared a Final IS/MND that "identifies all potentially significant environmental impacts and, in combination with the APMs proposed by LSPGC,

Compliance, and Reporting Program to assure that implementation of and compliance with the mitigation measures would be monitored and enforced by the Commission.

⁸ See Final IS/MND at Chapter 5.

⁹ LSPGC Opening Brief at 6.

¹⁰ LSPGC Opening Brief at 7.

specifies additional mitigation measures to mitigate any potentially significant environmental impacts to less-than-significant levels.”¹¹

We find that the Final IS/MND was completed in compliance with CEQA. The Commission’s preparation of the Final IS/MND complies with the applicable CEQA requirements. Additionally, the mitigation measures set forth in the MMRCP, including the APMs, are designed to reduce or eliminate the potentially significant environmental impacts of the Gates Project and meet the criteria set forth in CEQA Guidelines Section 15370.¹²

3.1.3. The Final IS/MND Reflects the Commission’s Independent Judgment and Analysis

The Commission must determine whether the Final IS/MND reflects the Commission’s independent judgment and analysis.

LSPGC asserts that the IS/MND reflects the Commission’s independent judgment and analysis, citing specifically to the Commission’s Energy Division, which oversaw the CEQA process and development of the Final IS/MND. LSPGC also contends that the Commission will exercise its independent judgment and analysis when it reviews and considers the Final IS/MND and the proposed decision in this proceeding.¹³

We find that record shows that Final IS/MND reflects the Commission’s independent judgment and analysis. The Commission’s thorough and independent analysis shows that no significant environmental impacts from the Gates Project will remain after incorporation of LSPGC’s proposed measures and the Commission’s imposed mitigation measures.

¹¹ *Ibid.*

¹² *See* Final IS/MND at Chapter 5.

¹³ LSPGC Opening Brief at 8.

3.2. EMF

The Commission must evaluate whether the Gates Project was designed in compliance with the Commission's policies governing the mitigation of EMF effects using low-cost and no-cost measures. Section X(A) of GO 131-D requires that applications for a PTC include a description of the measures taken or proposed by the utility to reduce the potential exposure to EMF generated by the proposed project.¹⁴ The Commission's EMF Design Guidelines for Electrical Facilities, dated July 21, 2006, provide a checklist for new substations in excess of 50 kV. Additionally, D.06-01-042 determined that only no-cost EMF mitigation measures are required for projects located in agricultural or undeveloped areas.

In accordance with Commission requirements, LSPGC provided a Field Management Plan with its application that indicated the specific no-cost field reduction measures taken to reduce EMF exposure.¹⁵ LSPGC asserts that Gates Project only requires no-cost measures because it is sited in an agricultural area, on land that was previously used for agriculture.¹⁶ Based on the Gates Project's location and design, LSPGC used the checklist for new substations in excess of 50 kV to demonstrate its adoption of the no-cost EMF reduction measures.

We find that LSPGC has complied with the Commission's policies governing the mitigation of EMF effects. The Gates Project is located in an agricultural area, therefore, LSPGC's inclusion of no-cost measures is consistent with Commission requirements. Therefore, the no-cost measures included in the Field Management Plan satisfies the Commission's requirements.

¹⁴ Final IS/MND at 2-42 to 2-43.

¹⁵ A.21-02-018, Attachment E.

¹⁶ LSPGC Opening Brief, at 8.

3.3. Impacts on Environmental and Social Justice Communities

The Commission also considers the Gates Project's impacts on environmental and social justice communities, including the extent to which it furthers any of the nine goals of the Commission's Environmental and Social Justice Action Plan.

LSPGC asserts that the Gates Project will have minimal or no impacts on environmental and social justice communities and aligns with the Commission's environmental and social justice goals. LSPGC indicates that the nearest sensitive receptors are residences located approximately 1.8 miles from the Gates Project site and that the evaluations in the IS/MND find that air emissions from the project would be "below all applicable thresholds of concern, and noise levels would be imperceptible and would not exceed County standards."¹⁷ LSPGC asserts that the IS/MND reflects that the Gates Project would not result in any significant impacts at the sensitive receptor locations based or create any significant impacts within any environmental justice community.¹⁸

LSPGC emphasizes that the impacts of the Gates Project are not significant due to: (1) the large separation distance between the project site and the sensitive receptors, (2) low population density in this rural project area, and (3) the presence of an existing substation and numerous transmission lines nearby. LSPGC further contends that the Gates Project meets the Commission's Environmental and Social Justice Action Plan goals by: (1) increasing climate resiliency by facilitating the transmission of renewable and low-carbon energy and (2) promoting economic opportunities by employing members of nearby

¹⁷ *Id.* at 9; Final IS/MND at 3.3-23, 3.21-7 and 3.21-16.

¹⁸ LSPGC Opening Brief at 10.

communities during the construction of the Gates Project.¹⁹ LSPGC also cites locals benefits due to increases in tax revenues and improved electricity transmission capabilities.²⁰

Based on the record, we find that the Gates Project is consistent with the goals of the Commission's Environmental and Social Justice Action Plan. The Gates Project supports Goal 4 by enhancing climate resiliency and Goal 7 by creating high road careers.²¹

4. Minor Project Refinements

The Commission's Energy Division may approve requests by LSPGC for minor project refinements that may be necessary due to the final engineering of the project, so long as such minor project refinements are located within the geographic boundary of the study area of the Final IS/MND and do not:

(1) result, without mitigation, in a new significant impact based on the criteria used in the Final IS/MND; (2) substantively conflict with any mitigation measure or applicable law or policy; or (3) trigger an additional discretionary permit requirement.

A minor project refinement should be strictly limited to a minor project change that will not trigger other discretionary permit requirements, that does not increase the severity of an impact or create a new impact, and that clearly and strictly complies with the intent of the mitigation measure. LSPGC shall seek any project changes that do not fit within these criteria by a petition to modify today's decision. A change to the approved that has the potential for

¹⁹ LSPGC Opening Brief at 10.

²⁰ *Ibid.*

²¹ Environmental and Social Justice Action Plan (April 2022) at 23-24.

creating significant environmental effects will be evaluated to determine whether supplemental CEQA review is required.

Any proposed deviation from the approved project and adopted APMs or mitigation measures, including correction of such deviation, shall be reported immediately to the Commission and the mitigation monitor assigned to the construction for their review and Commission approval.

5. Comments on Proposed Decision

The proposed decision of Administrative Law Judge Poirier in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. LSPGC filed opening comments on December 8, 2022. We have considered the comments and made modifications to the proposed decision as appropriate.

6. Assignment of Proceeding

Darcie L. Houck is the assigned Commissioner and Marcelo L. Poirier is the assigned Administrative Law Judge in this proceeding.

Findings of Fact

1. All environmental impacts related to the Gates Project are less than significant or reduced to less-than-significant levels with incorporation of feasible mitigation measures identified in the MMRCP.

2. With the implementation of the APMs and mitigation measures identified in the MMRCP of the Final IS/MND, the potentially significant impacts to aesthetics, agriculture, air quality, biological resources, cultural and tribal cultural resources, geology, soils, paleontology, greenhouse gas emissions, hazards and hazardous materials, hydrology, public services, transportation and traffic and utilities will be reduced to less than significant levels.

3. The Gates Project is designed in compliance with the Commission's policies governing the mitigation of EMF effects.

4. The Gates Project is located in an agricultural area.

5. The Gates Project is consistent with the goals of the Commission's Environmental and Social Justice Action Plan.

6. No comments on the Final IS/MND were received during the public review period.

7. The Commission has reviewed and considered the information contained in the Final IS/MND.

8. The Final IS/MND complies with CEQA.

Conclusions of Law

1. LS Power Grid California, LLC should be granted a permit to construct the Gates Project in conformance with the mitigation measures and APM include in the MMRCPP attached to this order.

2. With the implementation of the MMRCPP, there is no substantial evidence that the Gates Project will have a significant impact on the environment.

3. The Final IS/MND reflects the Commission's independent judgment and analysis.

4. The Commission's preparation of an MND was supported by substantial record evidence.

5. The Final IS/MND was completed in compliance with CEQA requirements.

6. The Commission should adopt the Final IS/MND in this decision.

7. With the issuance of the Permit to Construct, LS Power Grid California, LLC will become a public utility subject to the jurisdiction of the Commission.

8. LS Power Grid California, LLC should be assigned a “U” number to be used in filings with and submissions to the Commission.

9. This order should be effective immediately.

10. This proceeding should be closed.

O R D E R

IT IS ORDERED that:

1. LS Power Grid California, LLC is granted a permit to construct the Gates 500 kilovolt Dynamic Reactive Support Project in conformance with the mitigation measures attached to this order.

2. LS Power Grid California, LLC is assigned a “U” number to be used in filings with and submissions to the Commission.

3. The Final Mitigated Negative Declaration for the Gates Project is adopted.

4. The mitigation measures and applicant proposed measures included as part of the Final Mitigated Negative Declaration and the Mitigation Monitoring, Reporting, and Compliance Plan attached to this order as Attachment A, are adopted.

5. Application 21-02-018 is closed.

This order is effective today.

Dated December 15, 2022, at San Francisco, California.

ALICE REYNOLDS
President
CLIFFORD RECHTSCHAFFEN
GENEVIEVE SHIROMA
DARCIE L. HOUCK
JOHN REYNOLDS
Commissioners

Attachment A :
**Final Mitigated Negative Declaration and the
Mitigation Monitoring, Reporting, and Compliance Plan**

CHAPTER 5

Mitigation Monitoring, Compliance, and Reporting Program

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STATE OF CALIFORNIA

Gavin Newsom, Governor

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM

LS Power Grid California, LLC – Gates 500 KV Dynamic Reactive Support Project (APPLICATION NO. A.21-02-018)

Introduction

This document describes the mitigation monitoring, compliance, and reporting program (MMCRP) for ensuring the effective implementation of the mitigation measures required for the California Public Utilities Commission (CPUC) approval of the LS Power Grid California, LLC's (LSPGC's) application to construct, operate and maintain the Gates 500 KV Dynamic Reactive Support Project (Project). The MMCRP includes all measures proposed by LSPGC also referred to as Applicant Proposed Measures (APMs), and all mitigation measures identified by the CPUC to reduce potentially significant impacts to less-than-significant levels. All APMs and mitigation measures are presented in **Table 5-1** provided at the end of this MMCRP.

If the Project is approved by the CPUC, this MMCRP would serve as a self-contained general reference for the Mitigation Monitoring, Compliance, and Reporting Program adopted by the CPUC for the Project. If and when the Project is approved by the Commission, the CPUC will compile the Final Plan from the Mitigation Monitoring Program in the Final Mitigated Negative Declaration (MND), as adopted.

LS Power Grid California, LLC – MMCRP Authority

The California Public Utilities Code in numerous places confers authority upon the CPUC to regulate the terms of service and the safety, practices, and equipment of utilities subject to its jurisdiction. It is the standard practice of the CPUC, pursuant to its statutory responsibility to protect the environment, to require that mitigation measures stipulated as conditions of approval are implemented properly, monitored, and reported on. In 1989, this requirement was codified statewide as Section 21081.6 of the Public Resources Code. Section 21081.6 requires a public agency to adopt a reporting or monitoring program when it adopts a mitigated negative declaration for a project that could have potentially significant environmental effects. California Environmental Quality Act (CEQA) Guidelines Section 15097 was added in 1999 to further clarify agency requirements for mitigation monitoring and reporting.

The purpose of a MMCRP is to ensure that measures adopted to mitigate or avoid significant impacts of a project are implemented. The CPUC views the MMCRP as a working guide to facilitate not only the implementation of mitigation measures by the project proponent, but also the monitoring, compliance, and reporting activities of the CPUC and any monitors it may designate.

The CPUC will address its responsibility under Public Resources Code Section 21081.6 when it takes action on LSPGC's application. If the CPUC approves the application, it also will adopt a MMCRP that includes the mitigation measures ultimately made conditions of approval by the CPUC. Because the CPUC must decide whether or not to approve the LSPGC application and because the application may cause either direct or reasonably foreseeable indirect effects on the environment, CEQA requires the CPUC to consider the potential environmental impacts that could occur as the result of its decision and to consider mitigation for any identified significant environmental impacts.

If the CPUC approves LSPGC's application to construct and operate the Orchard Substation, LSPGC would be responsible for implementation of all of the Applicant Proposed Measures (APM) and all mitigation measures governing the construction, operation, and maintenance of the Project. The PG&E Interconnection facilities are analyzed in the IS/MND because, combined with the Orchard Substation Facility, they constitute the Project being evaluated under CEQA. However, the PG&E Interconnection Facilities are not part of this application proceeding and will not be authorized under this specific CPUC's decision. Though other federal, State, and local agencies would have permit and approval authority over some aspects of the Project, the CPUC would continue to act as the lead agency for monitoring compliance with all mitigation measures required by the adopted IS/MND. All approvals and permits obtained by LSPGC would be submitted to the CPUC prior to commencing the activity for which the permits and approvals were obtained.

In accordance with CEQA, the CPUC reviewed the impacts that would result from approval of the application. The activities considered include construct and operate the Orchard Substation which would consist of a +/- 848¹ million volt-amperes, reactive (MVAR) dynamic reactive device to be installed in a minimum of two, equally sized Static Synchronous Compensator² (STATCOM) units that would be independently connected to the existing Pacific Gas and Electric Company's (PG&E) Gates 500 kV Substation. Connection to the PG&E Gates Substation would require PG&E to construct and operate two single-circuit 500 kV interconnection transmission lines from the Gates Substation 500 kV bus to the Orchard Substation 500 kV take-off towers.

The CPUC review concluded that implementation of the Project would not result in any significant unmitigable impacts. All potential impacts would be mitigated to less-than-significant levels or would be less than significant. LSPGC has agreed to incorporate all the CPUC-recommended mitigation measures into the Project. The CPUC has included the stipulated

¹ The designation "±" indicates both leading (capacitive) and lagging (inductive) reactive power.

² A STATCOM device provides or absorbs reactive current to regulate voltage on electricity transmission networks.

mitigation measures as conditions of approval of the application and has circulated an IS/proposed MND for public review.

Because the CPUC must decide whether or not to approve the LSPGC application and because the application may cause either direct or reasonably foreseeable indirect effects on the environment, CEQA requires the CPUC to consider the potential environmental impacts that could occur as the result of its decisions and to consider mitigation for any identified significant environmental impacts.

The attached IS/MND presents and analyzes potential environmental impacts that would result from construction, operation, and maintenance of the Project, and recommends mitigation measures as appropriate. Based on the IS/MND, approval of the application would have no impact or less than significant impacts in the following areas:

- Aesthetics
- Agriculture and Forestry
- Air Quality
- Cultural Resources
- Energy
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise and Vibration
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal and Cultural Resources
- Utilities and Service Systems
- Wildfire

The IS/MND indicates that approval of the application would result in potentially significant impacts in the areas listed below, and so identifies APMs and mitigation measures that have been accepted by LSPGC to reduce the significance below established thresholds.

- Biological Resources
- Geology and Soils

Roles and Responsibilities

As the lead agency under CEQA, the CPUC is required to monitor the Project to ensure that the required mitigation measures and all APMs are implemented, as described in the IS/MND. The CPUC will be responsible for ensuring full compliance with the provisions of this MMCRP and has primary responsibility for implementation of the monitoring program. The purpose of the monitoring program is to document that the mitigation measures and APMs required and relied upon by the CPUC are implemented and that mitigated environmental impacts are reduced to a less-than-significant level. The CPUC has the authority to halt any activity associated with the Project if the activity is determined to be a deviation from the approved Project or the adopted APMs and mitigation measures.

The CPUC may delegate duties and responsibilities for monitoring to other mitigation monitors or consultants as deemed necessary. The CPUC will ensure that the person(s) delegated any duties or responsibilities are qualified to monitor compliance.

The CPUC, along with its mitigation monitor, will ensure that any variance process, which will be designed specifically for the Project, or deviation from the procedures identified under the monitoring program is consistent with CEQA requirements; no Project variance will be approved by the CPUC if it creates new significant environmental impacts. As defined in this MMCRP, a variance should be strictly limited to minor Project changes that will not trigger other permit requirements, that does not increase the severity of an impact or create a new impact, and that clearly and strictly complies with the intent of the mitigation measure. A change to the Project that has the potential for creating significant environmental effects will be evaluated to determine whether supplemental CEQA review is required. Any proposed deviation from the approved Project and adopted mitigation measures, including correction of such deviation, shall be reported immediately to the CPUC and the mitigation monitor assigned to the construction for their review and CPUC approval. In some cases, a variance also may require approval by a CEQA responsible agency.

Enforcement and Responsibility

The CPUC is responsible for enforcing the procedures for monitoring through the environmental monitor. The environmental monitor shall note problems with monitoring, notify appropriate agencies or individuals about any problems, and report the problems to the CPUC. The CPUC has the authority to halt any construction, operation, or maintenance activity associated with the Project if the activity is determined to be a deviation from the approved Project or adopted APMs or mitigation measures. The CPUC may assign its authority to its environmental monitor.

Mitigation Compliance Responsibility

LSPGC is responsible for successfully implementing all of the adopted APMs and mitigation measures in this MMCRP. The MMCRP contains criteria that define whether mitigation is successful. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining permits or avoiding a specific impact entirely. Additional mitigation success thresholds will be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of mitigation measures.

LSPGC shall inform the CPUC and its mitigation monitor in writing of any mitigation measures that are not or cannot be successfully implemented. The CPUC in coordination with its mitigation monitor will assess whether alternative mitigation is appropriate and specify to LSPGC the subsequent actions required.

Dispute Resolution Process

The MMCRP is expected to reduce or eliminate potential disputes between CPUC staff and the applicant concerning implementation of the adopted mitigation measures. Issues should first be addressed informally at the field level between the CPUC Environmental Monitoring Team and the LSPGC Environmental Compliance Team with questions that may be raised to the LSPGC Project Manager or Construction Manager, as necessary. Should the issue not be resolved at the field level, the following procedure will be observed for dispute resolution between CPUC staff and the applicant:

- Disputes and complaints should be directed first to the CPUC's designated Project Manager for resolution. The Project Manager will attempt to resolve the dispute.
- Should this informal process fail, the CPUC Project Manager may initiate enforcement or compliance action to address deviations from the approved Project or MMCRP.

General Monitoring Procedures

Mitigation Monitor

Many of the monitoring procedures will be conducted during the construction phase of the Project. The CPUC and the mitigation monitor are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with LSPGC. To oversee the monitoring procedures and to ensure success, the mitigation monitor assigned to the construction must be on site during that portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The mitigation monitor is responsible for ensuring that all procedures specified in this MMCRP are followed.

Construction Personnel

A key feature contributing to the success of mitigation monitoring will be obtaining the full cooperation of construction personnel and supervisors. Many of the mitigation measures and APMs require action on the part of the construction supervisors or crews for successful implementation. To ensure success, the following actions, detailed in specific mitigation measures included in this MMCRP, will be taken:

- LSPGC shall require all contractors to comply with the conditions of Project approval, including all applicable APMs and mitigation measures.
- One or more pre-construction meetings will be held to inform all and train construction personnel about the requirements of the MMCRP.
- A written summary of mitigation monitoring procedures will be provided to construction supervisors for all APMs and mitigation measures requiring their attention.

General Reporting Procedures

Site visits and specified monitoring procedures performed by other individuals will be reported to the mitigation monitor assigned to the construction. A monitoring record form will be submitted to the mitigation monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the mitigation monitor. A checklist will be developed and maintained by the mitigation monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The mitigation monitor will note any problems that may occur and take appropriate action to rectify the problems. LSPGC shall provide the CPUC with written quarterly reports of the Project, which shall include progress of construction, resulting impacts, mitigation implemented, and all other noteworthy elements of the Project. Quarterly reports shall be required as long as mitigation measures are applicable.

Public Access to Records

The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available for public inspection by the CPUC on request. The CPUC and LSPGC will develop a filing and tracking system

Condition Effectiveness Review

In order to fulfill its statutory mandates to mitigate or avoid significant effects on the environment and to design a MMCRP to ensure compliance during project implementation (Pub. Res. Code §21081.6):

- The CPUC may conduct a comprehensive review of conditions which are not effectively mitigating impacts at any time it deems appropriate, including as a result of the Dispute Resolution procedure outlined above; and
- If in either review, the CPUC determines that any conditions are not adequately mitigating significant environmental impacts caused by the project, or that recent proven technological advances could provide more effective mitigation, then the CPUC may impose additional reasonable conditions to effectively mitigate these impacts.

These reviews will be conducted in a manner consistent with the CPUC's rules and practices.

Mitigation Monitoring, Compliance, and Reporting Program

The table attached to this MMCRP presents a compilation of the adopted APMs and mitigation measures in the IS/MND. The purpose of the table is to provide a single comprehensive list of impacts, mitigation measures, adopted APMs, monitoring and reporting requirements, and timing. LSPGC proposed APMs to minimize environmental impacts associated with implementation of the Project. In some instances, those APMs have been superseded by CPUC-recommended mitigation measures, as described in the IS/MND. The table below identifies only those APMs that have not been superseded and will be implemented as part of the Project.

**TABLE 5-1
TABLE OF MITIGATION MEASURES**

Resource Area	Applicant Proposed Measures (APMs) PG&E Avoidance and Impact Minimization Measures (AMMs), Best Management Practices (BMPs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Applicant Proposed Measures				
<i>Aesthetics</i>	APM AE-1: All Orchard Substation Facilities sites would be maintained in a clean and orderly state. Construction staging areas would be sited away from public view where possible. Nighttime lighting would be directed away from residential areas and have shields to prevent light spillover effects. Upon completion of project construction, project staging and temporary work areas would be returned to pre-project conditions, including re-grading of the site and re-vegetation or re-paving of disturbed areas to match pre-existing contours and conditions.	Applicant or designated contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
<i>Aesthetics</i>	APM AE-2: Structures and equipment at the proposed Orchard Substation would be a non-reflective finish and neutral gray color.	Applicant or designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
<i>Agricultural Resources</i>	APM AGR-1: Prior to commencing construction of the Orchard Substation Facilities, LSPGC must ensure that the Williamson Act contract for the 20-acre portion of the Project site impacted by the Project is: <ul style="list-style-type: none"> • Cancelled pursuant to Title 5, Division 1, Part 1, Chapter 7, Article 5 of the California Government Code; • Determined by Fresno County to be consistent with the Proposed Project; or Nullified via eminent domain or purchase in lieu of eminent domain pursuant to Title 5, Division 1, Part 1, Chapter 7, Article 6 of the California Government Code. 	Applicant to implement measure as described	LSPGC to provide evidence of compliance. CPUC mitigation monitor to inspect compliance.	Prior to construction.
<i>Air Quality</i>	APM AQ-1: The Orchard Substation Facilities portion of the Project would ensure that at least 32 percent of all diesel-powered equipment use (tracked as horse-power hours) during construction year 2022 is from equipment that meet USEPA-certified Tier 4 standards, the highest USEPA-certified tiered emission standards. Prior to the commencement of construction, LSPGC shall develop a diesel-powered equipment use hours tracking tool and procedure. The tracking tool shall be utilized by the Project to keep track of the certified engine tier and daily equipment use hours of all off-road diesel-powered equipment. If all diesel-powered equipment is certified Tier 4, the tracking tool would not be required; however, the Orchard Substation Facilities portion of the Project would be required to verify, record, and track the engine tier of all equipment. The tracking tool shall be maintained by the Project and tracking updates shall be submitted to the CPUC on a monthly basis to track the Project's compliance. Records of the engine tier of all equipment shall be kept onsite and made available to the CPUC upon request.	Applicant or designated contractors to implement measure as defined.	Applicant to maintain equipment list and provide upon request to CPUC along with tracking tool, as applicable. CPUC to mitigation monitor to inspect compliance.	Prior to and during all phases of construction activities at the Orchard Substation.
<i>Air Quality</i>	APM AQ-2: The Orchard Substation Facilities portion of the Project would comply with SJVAPCD Rule 8021 and would prepare and implement a Dust Control Plan for approval by the SJVAPCD Air Pollution Control Officer (APCO). The Dust Control Plan would include specific dust control measures as prescribed within Rule 8021, or as otherwise requested by the APCO. This plan would be submitted and approved prior to construction.	Applicant or designated contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance.	Dust control plan to be prepared prior to, and implemented during construction.

**TABLE 5-1
TABLE OF MITIGATION MEASURES**

Resource Area	Applicant Proposed Measures (APMs) PG&E Avoidance and Impact Minimization Measures (AMMs), Best Management Practices (BMPs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Air Quality	APM AQ-3: The Orchard Substation portion of the Project would comply with AB 203 and provide Valley fever awareness training to all construction workers, inspectors, monitors, and any other project personnel that are required to perform work in or near disturbed soils or dust emissions at the Orchard Substation Facilities site. The Valley fever awareness training materials would be prepared by a qualified professional, adapted from agency published trainings (CDPH, CDC, etc.), or otherwise produced by a qualified source. The Valley fever awareness training would be incorporated into the Project’s overall Worker Environmental Awareness Program (WEAP) training.	Applicant or designated contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	Prior to and during construction.
Biological Resources	APM BIO-1: Speed of vehicles driving along proposed access roads and on the Project site during construction and O&M would be limited to 15 mph. In addition, construction and maintenance employees would be advised that care should be exercised when commuting to and from the Proposed Project area to reduce accidents and animal road mortality.	Applicant and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance	During all phases of the project.
Biological Resources	APM BIO-2 Conductors and ground wires would be spaced sufficiently apart so that raptors cannot contact two conductors or one conductor and a ground wire causing electrocution (APLIC 2006), or raptor protection would be installed subject to PG&E consent for application of such measures to its components of the Project, such as distribution lines.	Applicant and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance	During all phases of the project.
Biological Resources	APM BIO-3: Appropriate methods to reduce the risks of avian collisions would be incorporated into the Project’s design (APLIC 2012), subject to PG&E consent for application of such measures to its components of the Project, such as distribution lines	Applicant and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance	Prior to construction.
Biological Resources	APM BIO-4: If feasible, the Applicant would avoid construction during the migratory bird nesting or breeding season. When it is not feasible to avoid construction during the nesting or breeding season, the Applicant would perform a survey in the area where the work is to occur. This survey would be performed to determine the presence or absence of nesting birds. If an active nest (i.e., containing eggs or young) is identified, a suitable construction buffer would be implemented to ensure that the nesting or breeding activities are not substantially adversely affected. If the nesting or breeding activities are being conducted by a federal- or state-listed species, the Applicant would consult with the USFWS and CDFW as necessary. Monitoring of the nest would continue until the birds have fledged or construction is no longer occurring on the site. If an inactive nest is identified, careful nest removal under the supervision and direction of qualified biologists would occur wherever feasible.	Applicant and its contractors to implement measure as defined.	Applicant’s qualified biologist to coordinate with wildlife agencies (as applicable) regarding construction buffer. CPUC mitigation monitor to inspect compliance	Up to 30 days prior to construction and during all phases of construction activities.
Biological Resources	APM BIO-5: If a raptor nest is observed during pre-construction surveys, a qualified biologist would determine if it is active. If the nest is determined to be active, the biological monitor would monitor the nest to ensure that nesting or breeding activities are not substantially adversely affected. If the biological monitor determines that activities associated with the Project are disturbing or disrupting nesting or breeding activities, the monitor would make recommendations to reduce noise or disturbance in the vicinity of the nest.	Applicant and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	Up to 30 days prior to construction and during all phases of construction activities.

**TABLE 5-1
TABLE OF MITIGATION MEASURES**

Resource Area	Applicant Proposed Measures (APMs) PG&E Avoidance and Impact Minimization Measures (AMMs), Best Management Practices (BMPs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
<i>Biological Resources</i>	APM BIO-6: All excavated holes or trenches that are not be filled at the end of a workday would be covered, or a wildlife escape ramp would be installed to prevent the inadvertent entrapment of wildlife species.	Applicant and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
<i>Biological Resources</i>	APM BIO-7: The use of outdoor lighting during construction and O&M of the Orchard Substation would be minimized whenever practicable.	Applicant and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance	During all phases of the project.
<i>Biological Resources</i>	APM BIO-8: A WEAP would be implemented to educate all construction and O&M workers on site-specific biological and non-biological resources and proper work practices to avoid harming wildlife during construction or O&M activities.	Applicant and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance	Immediately prior to construction. To be repeated for all new personnel.
<i>Cultural and Tribal Cultural Resources</i>	<p>APM CUL-1 (Development and Implementation of a Worker Environmental Awareness Program): LSPGC would design and implement a Worker Environmental Awareness Program (WEAP) that would be provided to all Project personnel who may encounter and/or alter historical resources or unique archaeological properties, including construction supervisors and field personnel. The WEAP would be submitted and approved by the CPUC prior to construction. No construction worker would be involved in ground disturbing activities without having participated in the WEAP. The WEAP would include, at a minimum:</p> <ul style="list-style-type: none"> • Training on how to identify potential cultural resources and human remains during the construction process; • A review of applicable local, state and federal ordinances, laws and regulations pertaining to historic preservation; • A discussion of procedures to be followed in the event that unanticipated cultural resources are discovered during implementation of the Proposed Project; • A discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and LSPGC policies; and • A statement by the construction company or applicable employer agreeing to abide by the WEAP, LSPGC policies and other applicable laws and regulations. <p>The WEAP may be conducted in concert with other environmental or safety awareness and education programs for the Project, provided that the program elements pertaining to cultural resources are provided by a qualified archaeologist.</p>	Applicant and its contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance	Immediately prior to construction. To be repeated for all new personnel.
<i>Cultural and Tribal Cultural Resources</i>	APM CUL-2 (Cultural Resources Inventory): If proposed facilities and ground-disturbing activities move outside the previously surveyed footprint, those areas would be subjected to a cultural resources inventory to ensure that any newly identified cultural resources are avoided by ground disturbing activities.	Applicant and its contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance	During construction

**TABLE 5-1
TABLE OF MITIGATION MEASURES**

Resource Area	Applicant Proposed Measures (APMs) PG&E Avoidance and Impact Minimization Measures (AMMs), Best Management Practices (BMPs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Cultural and Tribal Cultural Resources	APM CUL-3 (Archaeological and Native American Monitoring): If subsurface prehistoric or ethnohistoric resources are encountered during construction, archaeological and Native American monitoring is recommended during all excavation associated with the Project. A qualified archaeologist and a member of the Dumna Wo-Wah Tribal Government shall be retained by LSPGC to monitor excavation associated with the Proposed Project to ensure that there is no impact to any significant unanticipated cultural resource. Prior to construction, LSPGC would consult with a designated representative of the Dumna Wo-Wah Tribal Government on the appropriate course of action to be taken should unanticipated cultural materials, and specifically human remains, be discovered during construction.	Applicant and its contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance	During construction of the project.
Cultural and Tribal Cultural Resources	APM CUL-4 (Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources): In the event that previously unidentified cultural resources are uncovered during implementation of the Project, all work within 100 feet (30 meters) of the discovery would be halted and redirected to another location. LSPGC’s qualified archaeologist would inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts would occur, the resource would be documented on State of California Department of Parks and Recreation cultural resource records and no further effort would be required. If the resource cannot be avoided and may be subject to further impact, LSPGC would evaluate the significance and CRHR eligibility of the resources and, in consultation with the CPUC, determine appropriate treatment measures. Preservation in place shall be the preferred means to avoid impacts to significant historical resources. Consistent with CEQA Section 15126.4(b)(3), if it is demonstrated that resources cannot feasibly be avoided, LSPGC’s qualified archaeologist, in consultation with the CPUC and, if the unearthed resource is prehistoric or Native American in nature, the Native American monitor, shall develop additional treatment measures, such as data recovery consistent with CEQA Guidelines Sections 15126.4(b)(3)(C)-(D). Archaeological materials recovered during any investigation shall be curated at an accredited curation facility.	Applicant and its contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance	During all phases of the project.
Cultural and Tribal Cultural Resources	APM CUL-5 (Unanticipated Discovery of Human Remains): Avoidance and protection of inadvertent discoveries that contain human remains shall be the preferred protection strategy where feasible and otherwise managed pursuant to the standards of CEQA Guidelines Sections 15064.5(d) and (e). If human remains are discovered during construction or O&M activities, all work shall be diverted from the area of the discovery, and the CPUC shall be informed immediately. The Applicant shall contact the County Coroner to determine whether or not the remains are Native American. If the remains are determined to be Native American, the Coroner would contact the NAHC. The NAHC would then identify the person or persons it believes to be the most likely descendant of the deceased Native American, who in turn would make recommendations for the appropriate means of treating the human remains and any associated funerary objects. No part of the Project is located on federal land.	Applicant and its contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance	During construction and project O&M

**TABLE 5-1
TABLE OF MITIGATION MEASURES**

Resource Area	Applicant Proposed Measures (APMs) PG&E Avoidance and Impact Minimization Measures (AMMs), Best Management Practices (BMPs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Geology and Soils	<p>APM GEO-1: The following measures would be implemented during construction to minimize impacts from geological hazards and disturbance to soils:</p> <ul style="list-style-type: none"> • Keep vehicle and construction equipment within the limits of the Project and in approved construction work areas to reduce disturbance to topsoil; • Prior to grading, salvage topsoil to a depth of six inches or to actual depth if shallower (as identified in site-specific geotechnical investigation report) to avoid mixing of soil horizons; • Avoid construction in areas with saturated soils, whenever practical, to reduce impacts to soil structure and allow safe access. Similarly, avoid topsoil salvage in saturated soils to maintain soil structure; • Keep topsoil material on-site in the immediate vicinity of the temporary disturbance or at a nearby approved work area to be used in restoration of temporary disturbed areas. Temporary disturbance areas would be re-contoured following construction to match pre-construction grades. Areas would be allowed to re-vegetate naturally or would be reseeded with a native seed mix from a local source if necessary. On-site material storage would be sited and managed in accordance with all required permits and approvals; and <p>Keep vegetation removal and soil disturbance to a minimum and limited to only the areas needed for construction. Removed vegetation would be disposed of off-site to an appropriate licensed facility or can be chipped on-site to be used as mulch during restoration.</p>	Applicant and its contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance	During construction.
Geology and Soils	<p>APM GEO-2: The structural requirements of the CBC are applicable to certain structural components of the Project, including the control enclosures. LSPGC and/or its contractors would design such structures to comply with such CBC standards and shall adhere to and implement all design recommendations and parameters established in the Project's Supplemental Geotechnical Engineering Report to be prepared and submitted to the CPUC upon completion.</p>	Applicant and its contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance	Submit supplemental geotechnical report to CPUC prior to construction and adhere to its requirements during construction.
Paleontology	<p>APM PALEO-1: In the unlikely event that fossils are unearthed during earthwork activities (i.e., an inadvertent discovery), earthwork within the vicinity of the discovery shall immediately halt, and a qualified paleontologist should evaluate the discovery. Earthwork shall be diverted until the significance of the fossil discovery can be assessed by the qualified paleontologist. If the fossil discovery is deemed significant, the fossil shall be recovered using appropriate recovery techniques based on the type, size, and mode of preservation of the unearthed fossil. Earthwork may resume in the area of the fossil discovery once the fossil has been recovered and the qualified paleontologist deems the site has been mitigated to the extent necessary. Additional earthwork following the fossil discovery may be monitored for paleontological resources on an as-needed basis, at the discretion of the qualified paleontologist.</p>	Applicant and its contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance	During construction.
Paleontology	<p>APM PALEO-2: Recovered fossils shall be prepared, identified, catalogued, and stored in a recognized professional repository (e.g., the SDNHM, the University of California Museum of Paleontology) along with associated field notes, photographs, and compiled fossil locality data.</p>	Applicant and its contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance	During construction.

**TABLE 5-1
TABLE OF MITIGATION MEASURES**

Resource Area	Applicant Proposed Measures (APMs) PG&E Avoidance and Impact Minimization Measures (AMMs), Best Management Practices (BMPs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
	<p>Donation of the fossils should be accompanied by financial support for initial specimen curation and storage. A final summary report should be completed that outlines the results of the mitigation program. This report should include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils. This report shall be submitted to appropriate agencies, as well as to the designated repository.</p>			
GHG	<p>APM GHG-1: The following measures shall be implemented to minimize greenhouse gas emissions from all construction sites:</p> <ul style="list-style-type: none"> • If suitable park-and-ride facilities are available in the Project vicinity, construction workers shall be encouraged to carpool to the job site. • Demolition debris shall be recycled for reuse to the extent feasible. • The contractor shall use line power instead of diesel generators at all construction sites where line power is available. <p>The contractor shall maintain construction equipment per manufacturing specifications.</p>	<p>Applicant and its contractors to implement measure as described.</p>	<p>CPUC mitigation monitor to inspect compliance</p>	<p>During construction.</p>
Hazardous Materials	<p>APM HAZ-1: A site-specific Spill Prevention, Control, and Countermeasure Plan (SPCCP) would be prepared prior to the initiation of construction. In the event of an accidental spill, the Project would be equipped with secondary containment that meets SPCCP Guidelines. The secondary containment would be sufficiently sized to accommodate accidental spills.</p>	<p>Applicant or designated contractors to implement measure as defined.</p>	<p>Applicant and/or its contractor to track compliance. CPUC mitigation monitor to inspect compliance</p>	<p>SPCCP to be prepared prior to construction and implemented during all phases of the project.</p>
Hazardous Materials	<p>APM HAZ-2: A Hazardous Materials Management Plan (HMMP) would be prepared and implemented for the Project. The plan would be prepared in accordance with relevant state and federal guidelines and regulations (e.g., Cal/OSHA). The plan would include the following information related to hazardous materials and waste, as applicable:</p> <ul style="list-style-type: none"> • A list of hazardous materials present on-site during construction and O&M to be updated as needed along with product Safety Data Sheets and other information regarding storage, application, transportation, and disposal requirements; • A Hazardous Materials Communication (i.e., HAZCOM) Plan; • Assignments and responsibilities of Project health and safety roles; • Standards for any secondary containment and countermeasures required for hazardous materials; • Spill response procedures based on product and quantity. The procedures would include materials to be used, location of such materials within the Project area, and disposal protocols; and • Protocols for the management, testing, reporting, and disposal of potentially contaminated soils or groundwater observed or discovered during construction. This would include termination of work within the area of suspected contamination sampling by an OSHA trained individual and testing at a certified laboratory. 	<p>Applicant or designated contractors to implement measure as defined</p>	<p>Applicant and/or its contractor to track compliance. CPUC mitigation monitor to inspect compliance</p>	<p>HMMP to be prepared prior to construction and implemented during all phases of the project.</p>

**TABLE 5-1
TABLE OF MITIGATION MEASURES**

Resource Area	Applicant Proposed Measures (APMs) PG&E Avoidance and Impact Minimization Measures (AMMs), Best Management Practices (BMPs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
	<p>The Project would also be equipped with lead-acid batteries to provide backup power for monitoring, alarm, protective relaying, instrumentation and control, and emergency lighting during power outages. Secondary containment would be constructed around and under the battery racks, and the HMMP would address containment from a battery leak.</p> <p>The plan would be provided to the CPUC prior to construction for recordkeeping. Plan updates would be made and submitted as needed if construction activities change whereas the existing plan does not adequately address the Project.</p>			
Hazardous Materials	<p>APM HAZ-3: In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are removed during site grading activities or excavation activities, the excavated soil shall be tested, and if contaminated above hazardous waste levels, shall be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil shall require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations.</p>	Applicant or designated contractors to implement measure as defined	Applicant and its contractor to track compliance. CPUC mitigation monitor to inspect compliance	During construction
Hazardous Materials	<p>APM HAZ-4: LSPGC shall implement ongoing fire patrols during the fire season as defined each year by local, state, and federal fire agencies. These dates vary from year to year, generally occurring from late spring through dry winter periods. During Red Flag Warning events, as issued daily by the National Weather Service, all construction/maintenance activities shall cease, with an exception for transmission line testing, repairs, unfinished work, or other specific activities which may be allowed if the facility/equipment poses a greater fire risk if left in its current state. Although the Project area is not located within an area designated as a Very High or High Fire Hazard Severity Zone, LSPGC will prepare a Construction Fire Prevention Plan prior to construction.</p> <p>All construction/maintenance crews and inspectors shall be provided with radio and cellular telephone access that is operational in all work areas and access routes to allow for immediate reporting of fires. Communication pathways and equipment shall be tested and confirmed operational each day prior to initiating construction/maintenance activities at each work site. All fires shall be reported to the fire agencies with jurisdiction in the area immediately upon discovery of the ignition. All construction/maintenance personnel shall be trained in fire-safe actions, initial attack firefighting, and fire reporting. All construction/maintenance personnel shall be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats. All construction/maintenance personnel shall carry at all times a laminated card and be provided a hard hat sticker that list pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on laminated contact cards and hard hat stickers shall be updated and redistributed to all construction/maintenance personnel and outdated cards and hard hat stickers shall be destroyed prior to the initiation of construction/maintenance activities on the day the information change goes into effect.</p> <p>Construction/maintenance personnel shall have fire suppression equipment on all construction vehicles. Construction/maintenance personnel shall be required to park vehicles away from</p>	Applicant or designated contractors to implement measure as defined	Applicant and its contractor to track compliance. CPUC mitigation monitor to inspect compliance	During construction

**TABLE 5-1
TABLE OF MITIGATION MEASURES**

Resource Area	Applicant Proposed Measures (APMs) PG&E Avoidance and Impact Minimization Measures (AMMs), Best Management Practices (BMPs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
	dry vegetation. Water tanks, fire extinguishers, and/or water trucks shall be sited or available at active project sites for fire protection during construction. The Applicant shall coordinate with applicable local fire departments prior to construction/maintenance activities to determine the appropriate amounts of fire equipment to be carried on vehicles and, should a fire occur, to coordinate fire suppression activities.			
Water Quality	<p>APM WQ-1: Because the Project involves more than an acre of soil disturbance, a SWPPP would be prepared as required by the state NPDES General Permit for Discharges of Stormwater Associated with Construction Activity. This plan would be prepared in accordance with the Water Board guidelines and other applicable erosion and sediment control BMPs. Implementation of the plan would help stabilize disturbed areas and would reduce erosion and sedimentation. The SWPPP would designate BMPs that would be followed during and after construction of the Project, examples of which may include the following erosion-minimizing measures:</p> <ul style="list-style-type: none"> • Using drainage control structures (e.g., straw wattles or silt fencing) to direct surface runoff away from disturbed areas; • Strictly controlling vehicular traffic; • Implementing a dust-control program during construction; • Restricting access to sensitive areas; • Using vehicle mats in wet areas; or • Revegetating disturbed areas, where applicable, following construction. <p>In areas where soils are to be temporarily stockpiled, soils would be placed in a controlled area and would be managed with similar erosion control techniques. Where construction activities occur near a surface waterbody or drainage channel and drainage from these areas flows towards a waterbody or wetland, stockpiles would be placed at least 100 feet from the waterbody or would be properly contained (such as beaming or covering to minimize risk of sediment transport to the drainage). Mulching or other suitable stabilization measures would be used to protect exposed areas during and after construction activities. Erosion-control measures would be installed, as necessary, before any clearing during the wet season and before the onset of winter rains. Temporary measures, such as silt fences or wattles intended to minimize erosion from temporarily disturbed areas, would remain in place until disturbed areas have stabilized.</p>	Applicant and its contractors to implement measure as described.	Applicant and its contractors to track compliance. CPUC mitigation monitor to inspect compliance.	SWPPP to be prepared prior to construction and implemented during construction.
Water Quality	<p>APM WQ-2: Groundwater encountered during construction would be handled and discharged in accordance with all state and federal regulations including the following: Recovered groundwater would be contained on site and tested prior to discharge; If testing determines water is suitable for land application, discharge may be applied to flat, vegetated, upland areas, used for dust control, or used in other suitable construction operations (e.g., concrete mixing);</p>	Applicant and its contractors to implement measure as described.	Applicant and its contractors to track compliance. CPUC mitigation monitor to inspect compliance	During construction

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TABLE OF MITIGATION MEASURES**

Resource Area	Applicant Proposed Measures (APMs) PG&E Avoidance and Impact Minimization Measures (AMMs), Best Management Practices (BMPs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
	<p>Land application would be made in a manner that discharge does not result in substantial erosion and would not be made directly to receiving waters or storm drains; Water unsuitable for land application would be disposed of at an appropriately permitted facility; and Discharge to surface waters or storm drains may occur only if permitted by the agency(ies) with jurisdiction over the resource (e.g., USACE [U.S. Army Corps of Engineers], RWQCB, and/or CDFW [California Department of Fish and Wildlife], as applicable).</p>			
Public Services	<p>APM PS-1: LSPGC would coordinate construction activities with local law enforcement and fire protection agencies. Emergency service providers would be notified of the timing, location, and duration of construction activities.</p>	<p>Applicant or designated contractors to implement measure as defined</p>	<p>Applicant and its contractors to track compliance. CPUC mitigation monitor to inspect compliance</p>	<p>During construction</p>
Traffic and Transportation	<p>APM TRA-1: LSPGC would prepare a Traffic Control Plan to describe measures to be taken to guide traffic (such as signs and workers directing traffic), safeguard construction workers, provide safe passage, and minimize traffic impacts. LSPGC would follow its standard safety practices as needed, including installing appropriate barriers between work zones and transportation facilities, posting adequate signs, and using proper construction techniques. LSPGC would follow the recommendations in this manual regarding basic standards for the safe movement of traffic on highways and streets in accordance with Section 21400 of the California Vehicle Code. If required for obtaining a local encroachment permit, LSPGC would establish a Traffic Management Plan (TMP) to address haul routes, timing of heavy equipment and building material deliveries, potential street and/or lane closures, signing, lighting, and traffic control device placement. Construction activities would be coordinated with local law enforcement and fire protection agencies. Emergency service providers would be notified as required by the local permit of the timing, location, and duration of construction activities.</p>	<p>Applicant or designated contractors to implement measure as defined</p>	<p>Applicant and its contractors to track compliance. CPUC mitigation monitor to inspect compliance</p>	<p>Prepare Traffic Control Plan prior to construction and implement plan during construction</p>
Public Utilities	<p>APM UTIL-1: The Applicant shall notify all utility companies with utilities located within or crossing the Orchard Substation Facilities' Rights-of-Way (ROW) to locate and mark existing underground utilities along the entire length of the Orchard Substation Facilities at least 14 days prior to construction. No subsurface work shall be conducted that would conflict with (i.e., directly impact or compromise the integrity of) a buried utility. In the event of a conflict, areas of subsurface excavation or pole installation shall be realigned vertically and/or horizontally, as appropriate, to avoid other utilities and provide adequate operational and safety buffering. In instances where separation between third-party utilities and underground excavations is less than 5 feet, the Applicant shall submit the intended construction methodology to the owner of the third-party utility for review and approval at least 30 days prior to construction. Construction methods shall be adjusted as necessary to assure that the integrity of existing utility lines is not compromised.</p>	<p>Applicant or designated contractors to implement measure as defined</p>	<p>CPUC mitigation monitor to inspect compliance</p>	<p>At minimum, 30-days prior to construction.</p>

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PG&E Construction Measures				
<i>Biological Resources</i>	AMM-1: Train employees and contractors in environmental regulations and guidelines to avoid or reduce effects on covered species.	PG&E and its designated contractors to implement measure as described.	PG&E to track and maintain its own compliance.	Prior to construction to be repeated for new personnel.
<i>Biological Resources</i>	AMM-2: Park vehicles and equipment on pavement, roads, or previously disturbed areas.	PG&E and its designated contractors to implement measure as described.	PG&E to track and maintain its own compliance.	During construction.
<i>Biological Resources</i>	AMM-3: Minimize or avoid new disturbance to the extent practicable.	PG&E and its designated contractors to implement measure as described.	PG&E to track and maintain its own compliance.	During construction.
<i>Biological Resources</i>	AMM-4: Do not exceed a speed limit of 15 mph on ROWs or unpaved roads within sensitive land cover types.	PG&E and its designated contractors to implement measure as described.	PG&E to track and maintain its own compliance.	During all phases of the project.
<i>Biological Resources</i>	AMM-5: Do not dump trash, bring firearms or pets, or have open fires such as barbecues on worksites.	PG&E and its designated contractors to implement measure as described.	PG&E to track and maintain its own compliance.	During all phases of the project.
<i>Biological Resources</i>	AMM-6: Do not refuel vehicles within 100 ft of a wetland or waterway unless a bermed and lined refueling area is constructed.	PG&E and its designated contractors to implement measure as described.	PG&E to track and maintain its own compliance.	During all phases of the project.
<i>Biological Resources</i>	AMM-7: In areas of high risk of wildlife electrocution, use insulated jumper wires, animal guards for equipment insulator bushings, or construct lines to follow the Bird and Wildlife Protection Standards.	PG&E and its designated contractors to implement measure as described.	PG&E to track and maintain its own compliance.	During all phases of the project.
<i>Biological Resources and Wildfire</i>	AMM-8: During fire season in SRAs, carry backpack water sprayers and shovels in all vehicles; during red flag conditions curtail welding, carry a large fire extinguisher on each fuel truck, and clear parking and storage areas of flammable materials.	PG&E and its designated contractors to implement measure as described.	PG&E to track and maintain its own compliance.	During construction.
<i>Biological Resources and Water Quality</i>	AMM-9: Implement erosion control measures where necessary to reduce erosion and sedimentation in wetlands or waterways.	PG&E and its designated contractors to implement measure as described.	PG&E to track and maintain its own compliance.	During construction.
<i>Biological Resources</i>	AMM-10: If more than 0.25 acre of grassland is disturbed, except in areas with vernal pools or covered plant species, restore to pre-existing conditions using a certified weed-free commercial seed mix.	PG&E and its designated contractors to implement measure as described.	PG&E to track and maintain its own compliance.	During construction.

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Biological Resources	AMM-11: If elderberry plants with one or more stems 1 inch at ground level are present, establish an exclusion zone of 20 ft. If impacts are unavoidable, follow additional measures in the VELB conservation plan and compliance brochure, which must be in all vehicles working within range of VELB.	PG&E and its designated contractors to implement measure as described.	PG&E to track and maintain its own compliance.	During construction.
Biological Resources	AMM- 12: San Joaquin kit fox. If San Joaquin kit fox dens are present, their disturbance and destruction will be avoided where possible. However, if dens are located within the proposed work area and cannot be avoided during construction, qualified biologists will determine if the dens are occupied. If unoccupied, the qualified biologist will remove these dens by hand excavating them in accordance with USFWS procedures (U.S. Fish and Wildlife Service 1999). Exclusion zones will be implemented following USFWS procedures (U.S. Fish and Wildlife Service 1999) or the latest USFWS procedures. The radius of these zones will follow current standards or will be as follows: Potential Den—50 feet; Known Den—100 feet; Natal or Pupping Den—to be determined on a case-by-case basis in coordination with USFWS and DFG. Pipes will be capped and exit ramps will also be installed in these areas to avoid direct mortality.	PG&E and its designated contractors to implement measure as described.	PG&E to track and maintain its own compliance.	During construction.
Biological Resources	BMP-1: Nesting Birds. If work is anticipated to occur within the nesting bird season (February–September), nesting birds, including raptors and other species protected under the Migratory Bird Treaty Act, may be impacted. If active nests are discovered, exclusionary measures and or designated avoidance buffers may be required and implemented according to the guidance in the PG&E Nesting Bird Management Plan. For nests discovered during construction, PG&E implements Work Procedure (WP) 2321 to identify and avoid impacts to nesting birds. WP 2321 generally requires assistance from the project biologist to determine if the construction action will impact the nest, and if so, identify whether alternative actions or monitoring can be implemented to avoid impacts. If active nests are observed during construction, crews must immediately alert the PG&E project biologist.	PG&E and its designated contractors to implement measure as described.	PG&E to track and maintain its own compliance.	During construction.
Geology and Soils	BMP-2: Generation of Spoil - Substation. All spoils generated from within PG&E substations require sampling and shall only be disposed of PG&E approved landfills listed in ERTC Attachment Guide, Section 4, Part 1: ENV-4000P-01-JA15 'Job Aid- PG&E Authorized Disposal & Recycling Facilities'. Spoils from within substations are prohibited from give-away. Copies of all manifests are required to be submitted to the Environmental Lead/Project Environmental Field Specialist (EFS).	PG&E and its contractors to implement measure as described.	PG&E to track and maintain its own compliance.	During construction.
Geology and Soils	BMP-3: Addendum to the Geotechnical Investigation Report. Prior to final design and construction of the PG&E Interconnection Facilities, PG&E would prepare an addendum to the Geotechnical Investigation Report prepared by Kleinfelder, 2015. The addendum would acknowledge and describe Segments GV13 and GV14 of the Great Valley Fault System, and verify that the project design is sufficient to withstand movement and the associated shaking that could occur on the two fault segments.	PG&E and its contractors to implement measure as described.	PG&E to track and maintain its own compliance.	Prior to construction.

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Hazardous Materials	<p>BMP-4: Asbestos. If any loadbearing structure (poles, towers, concrete pads, etc.) is to be removed, this Project will require asbestos testing and notification to the local Air District or California Air Resource Board (CARB). Notify the Environmental Field Specialist (EFS) at least 45 calendar days prior to work commencing. The Air District must be notified at least 10 working days prior to work (demolition) commencing, some districts require 14 days. If the construction start date changes, notify the EFS immediately as notification to the Air District may need to be resubmitted. EFS is responsible for obtaining any necessary permits from the air district prior to start of work.</p>	PG&E and its contractors to implement measure as described.	PG&E to track and maintain its own compliance.	Notification to occur prior to construction, as described in measure.
Hazardous Materials	<p>BMP-5: Combustion Sources. If project or work involves the installation of a combustion source that may require a local air district permit, please work with the EFS and Air SME to evaluate compliance requirements. Combustion sources, depending on HP or MMBtu rating may require an Authority to Construct Permit prior to any installation activities and a Permit to Operate prior to operating.</p> <p>Typical Combustion Sources that require permits are:</p> <ul style="list-style-type: none"> • Engines ≤50 HP; • Boilers/Heaters that combust natural gas; and • Flares 	PG&E and its contractors to implement measure as described.	PG&E to track and maintain its own compliance.	Prior to and during construction.
Air Quality	<p>BMP-6: Fugitive Dust General. Types work activities where water trucks or other dust abatement methods are typically required include: excavation, trenching, grading, sand blasting, and demolition. The crew shall not allow visible dust to pass beyond the project boundary. The crew shall abate dust by:</p> <ul style="list-style-type: none"> • Applying water to disturbed areas and to storage stockpiles; • Applying water in sufficient quantities to prevent dust plumes during activities such as clearing & grubbing, backfilling, trenching and other earth moving activities; • Limit vehicle speed to 15 miles per hour; • Load haul trucks with a freeboard (space between top of truck and load) of six inches or greater; • Cover the top of the haul truck load; • Clean-up track-out at least daily; and • The crew shall not generate dust in amounts that create a nuisance to wildlife or people, particularly where sensitive receptors such as schools and hospitals are located nearby or down-wind. <p>During inactive periods (e.g. after normal working hours, weekends, and holidays), the crew shall apply water or other approved material to form a visible crust on the soil and restrict vehicle access</p>	PG&E and its contractors to implement measure as described.	PG&E to track and maintain its own compliance.	During construction.

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<i>Air Quality</i>	BMP-7: San Joaquin Valley AQMD >1 acre of soil disturbing activities. A Construction Notification Form must be submitted to the San Joaquin Valley APCD by the Environmental Lead/Project EFS at least 48 hours prior to commencing any earth moving activities.	PG&E to implement measures.	PG&E to track and maintain its own compliance.	At least 48 hours prior to construction earth moving activities.
<i>Hazardous Materials</i>	BMP-8: Hazardous Materials Business Plan: The Environmental Field Specialist (EFS) shall be notified 30 days prior to a threshold exceeding hazardous material/waste being placed on-site. Threshold limits are: 200 cubic feet of compressed gases (1000 cubic feet for simple asphyxiation or the release of pressure only; carbon dioxide), 500 pounds of solids, or 55 gallons of liquids for more than 30 non-consecutive days. The following jurisdictions require notification for any amount of hazardous material/waste: Counties: Nevada, San Bernardino (waste only), San Francisco, Santa Clara (call for city specific details), Santa Cruz, Yuba (waste only) Cities: Bakersfield (waste only), Berkeley, Healdsburg, Sebastopol, Petaluma, Santa Clara (call for city specific details). NOTE: The Project EFS will develop an HMBP if it is required.	PG&E to implement measures for PG&E Interconnection.	PG&E to track and maintain its own compliance.	Prior to or during construction; 30 days prior to a threshold exceeding event, as applicable.
<i>Hazardous Materials</i>	BMP-9: Hazardous Waste Management Hazardous Materials Storage: This project may involve the storage of hazardous materials and they must be managed according to regulations and best management practices. <ul style="list-style-type: none"> • All releases of hazardous materials must be immediately addressed. Maintain a spill kit onsite during the length of the project. Contact the project EFS for spills of hazardous materials/wastes to determine if agency notifications will be required and/or if additional resources are needed. • Hazardous materials, greater than 440 lbs and less than 1001 lbs can be transported on PG&E vehicles if the proper MOT shipping paper/MSDS accompanies the load. Contact the project EFS for additional guidance in these areas. • All hazardous materials containers must be marked correctly. • All hazardous materials signs must be displayed as required. • Non saturated oily rags (to be laundered) stored in non-combustible containers. • Emergency equipment such as fire extinguisher, eye wash, MSDS, etc. on-site. • Hazardous material containers must be in good condition. • All hazardous materials must be compatible with containers. • Hazardous materials containers are kept closed. If there is an unauthorized release of hazardous material, contact your Environmental Field Specialist immediately. For after-hours releases contact the Environmental Emergency Hotline at 1-800-874-4043.	PG&E to implement measures for PG&E Interconnection.	PG&E to track and maintain its own compliance.	During all phases of the project.
<i>Hazardous Materials</i>	BMP-10: Sulfur Hexafluoride (SF6) Gas Material/Waste Management. Before accessing any equipment that may contain SF6 gas byproduct waste, contact your local Environmental Field Specialist (EFS) at least two weeks in advance for assistance in arranging cleanup,	PG&E to implement measures for PG&E Interconnection.	PG&E to track and maintain its own compliance.	Prior to and/or during construction as described by measure.

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	<p>transportation and disposal. PSC will retrieve, package, label and transport SF6 byproducts. All SF6 waste that is removed from a Substation must have proper shipping papers which could include a remote waste shipping paper or a manifest (manifests require a temporary EPA ID number).</p> <ul style="list-style-type: none"> Substation personnel shall contact PSC to retrieve, package, label, and transport SF6 byproduct waste (i.e. fluorides of sulfur, metallic fluorides, etc.). All SF6 byproduct waste that is removed must have proper shipping papers, which could include a remote waste shipping paper or a manifest (manifests require a permanent or temporary EPA ID number). SF6 cylinder tracking and facility inventory shall be managed in accordance with Utility Procedure TD-3350P-001. <p>Advanced Specialty Gas (ASG) provides sole-source service in supplying, replacing, removal and recycling of SF6 in all facilities. ASG provides 24-hour service in response to events involving SF6 as well as delivery and removal of all SF6 cylinders. Contact information: https://www.advancedspecialtygases.com.</p>			
Hazardous Materials	<p>BMP-11: SPCC: The local/support EFS shall be notified 30 days prior to an SPCC triggering event occurs (modification to existing or new storage of >1,320 gallons of oil in containers >55 gallons). If the oil volume is contained in anything greater than 55 gallons, the SPCC Plan must be certified by an engineer. The SPCC containment must be installed prior to moving onsite of quantities requiring containment. The PM number must remain open until the local/support EFS notifies you that the plan is certified by an engineer, and any necessary modifications are complete.</p>	PG&E to implement measures for PG&E Interconnection.	PG&E to track and maintain its own compliance.	During all phases of the project.
Hazardous Materials	<p>BMP-12: Treated Wood: All new and used treated wood poles shall be managed in accordance with ENV-3000P-07 and stored on horizontal non-treated wood, concrete, or metal support beams raised off the ground to prevent decay and damage. As with any hazardous material, store treated wood away from storm drains.</p>	PG&E to implement measures for PG&E Interconnection.	PG&E to track and maintain its own compliance.	During all phases of the project.
Hazardous Materials	<p>BMP-13: Treated Wood Waste: All treated wood waste and debris (e.g., poles, cross-arms, saw dust, chips, etc.) shall be transported to the local PG&E or PG&E Contractor approved collection point and placed in designated bins. No poles may be left in place, unless formal authorization is obtained from applicable State and/or Federal agencies or a liability waiver is signed. Please refer to Job Aid ENV-4000P-07.</p>	PG&E to implement measures for PG&E Interconnection.	PG&E to track and maintain its own compliance.	During all phases of the project.
Hydrology and Water Quality	<p>BMP-14: Stormwater Measures: The Project EFS [Environmental Field Specialist] will provide the Stormwater Group with the following upon completion of the PER: Stormwater Needs Request Form, Soil Disturbance Calculation Spreadsheet, and a KMZ file showing the proposed work area. These documents shall be sent by the Project EFS, via email, to: stormwater@pge.com (if applicable).</p>	PG&E and its contractors to implement measure as defined.	PG&E to track and maintain its own compliance.	During construction.

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<i>Hydrology and Water Quality</i>	BMP-15: Stormwater Management A-ESCPs: Standard PG&E good housekeeping and stockpile management measures shall be implemented.	PG&E and its contractors to implement measure as defined.	PG&E to track and maintain its own compliance.	During all phases of the project.
<i>Hydrology and Water Quality</i>	BMP-16: Small Excavation: Construction Dewatering: Dewatering of trenches or excavations may be required. The Environmental Lead/Project EFS shall be notified at least 30 days in advance to ensure the appropriate dewatering methods are used, proper notifications are made, and, if necessary, applicable authorizations/permits are obtained. All dewatering activities must be coordinated through the Environmental Lead/Project EFS throughout the duration of the project.	PG&E to implement measures for PG&E Interconnection.	PG&E to track and maintain its own compliance.	Coordinate with EFS at least 30 days prior to dewatering, as applicable, prior to or during construction.
<i>Cultural and Tribal Cultural Resources</i>	BMP-17: Inadvertent Cultural Resource Discovery. If cultural resources are observed during ground-disturbing activities, the following procedures will be followed: <ul style="list-style-type: none"> • Stop all ground disturbing work within 100 feet of the discovery location to avoid impacts. • Immediately notify a PG&E Cultural Resource Specialist who will assess the discovery. • Leave the site or the artifact untouched. • Record the location of the resource, the circumstances that led to discovery, and the condition of the resource. • Do not publicly reveal the location of the resource and ensure the location is secured. • If unsure about the significance or antiquity of a discovery, photograph the artifact or feature with a scale (e.g., coin, tape measure, etc.) and send to a PG&E Cultural Resource Specialist for review. Comprehensive guidance on the protocol related to an inadvertent discovery of potentially significant cultural resources on a job site can be found in Utility Standard ENV-8005S or by consulting a PG&E Cultural Resource Specialist.	PG&E and its contractors to implement measure as defined.	PG&E to track and maintain its own compliance.	During construction.
<i>Cultural and Tribal Cultural Resources</i>	BMP-18: Human Remains Protocol. Section 7050.5 of the California Health and Safety Code (CHSC) states that it is a misdemeanor to knowingly disturb a human burial. In keeping with the provisions provided in 7050.5 CHSC and Public Resource Code 5097.98, if human remains are encountered (or are suspected) during any project-related activity: <ul style="list-style-type: none"> • Stop all work within 100 feet; • Immediately contact a PG&E Cultural Resource Specialist (CRS), who will notify the county coroner; • Secure location, but do not touch or remove remains and associated artifacts; • Do not remove associated spoils or pick through them; • Record the location and keep notes of all calls and events; and • Treat the find as confidential and do not publicly disclose the location. • Contact: 	PG&E and its contractors to implement measure as defined.	PG&E to track and maintain its own compliance.	During construction.

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	<ul style="list-style-type: none"> Upon discovery of cultural resources or suspected human remains, contact the following individual immediately: CRS Name: [Contact to be provided prior to construction.] 			
Biological Resources	<p>BMP-19: Bio Survey. A pre-activity survey (PAS) must be performed within 30 days of the construction start date to determine the presence of covered species. Results of the PAS will determine if any additional requirements, including monitoring and species specific AMMs, need to be implemented at these locations during construction. Any identified avoidance measures will be provided to construction crews. Avoidance measures must be adhered to during construction. Contact the PG&E project Biologist at least 30-days prior to start of any project activities, including mobilization and staging of equipment materials.</p>	PG&E and its contractors to implement measure as described.	PG&E to track and maintain its own compliance.	PAS to occur 30-days prior to construction start date; adhere to avoidance measures as described during construction.
Cultural and Tribal Cultural Resources	<p>BMP-20: Worker Awareness Training. Prior to the start of any ground-disturbing activity, PG&E's Cultural Resource Specialist (CRS) shall prepare archeological, historical and paleontological resources sensitivity training materials for use during a Project-wide Worker Environmental Awareness Training (WEAP), or equivalent. The CRS shall make the training materials available for review and comment by the Native American group that expressed interest in the project. The WEAP shall be conducted by a qualified environmental trainer working under the supervision of the CRS. In the event construction crews are phased, additional trainings shall be conducted for new construction personnel. The training session shall focus on the recognition of the types of resources that could be encountered within the Project site and the procedures to be followed if they are found. PG&E and/or its contractor shall retain documentation demonstrating that all construction personnel attended the training prior to the start of work on the site, which documentation shall be made available upon request.</p>	PG&E and its contractors to implement measure as described.	PG&E to track and maintain its own compliance.	Prior to and during construction. WEAP training to be repeated for new construction personnel.
Paleontological Resources	<p>BMP-21: Inadvertent Paleontological Resource Discovery. In the event that a paleontological resource is discovered during ground-disturbing activities, the foreman will temporarily divert the construction equipment around the find until it is assessed for scientific significance. A buffer of at least 50 feet around the discovery will be maintained for safety. The foreman will report the discovery to the site Supervisor and the PG&E point of contact given on the training brochure so that appropriate notifications can be issued. A temporary construction exclusion zone, consisting of lath and flagging tape in a 50-foot radius, will be erected around the discovery. Following fossil collection, the temporary construction exclusion zone will be removed and, once a professional paleontologist has assessed the situation, he/she will notify the site supervisor that construction activities may resume in the area of the find.</p>	PG&E and its contractors to implement measure as described.	PG&E to track and maintain its own compliance.	During construction.
Paleontological Resources	<p>BMP-22: Paleontological Resource Monitoring, Salvage, and Treatment Protocols. In the event of a discovery during ground disturbance, the procedures described in APM PALEO-1 (and BMP-21) shall be followed; if significant paleontological resources are encountered, the qualified paleontologist (meeting the standards set by the Society of Vertebrate Paleontology</p>	PG&E and its contractors to implement measure as described.	PG&E to track and maintain its own compliance.	During construction.

**TABLE 5-1
TABLE OF MITIGATION MEASURES**

Resource Area	Applicant Proposed Measures (APMs) PG&E Avoidance and Impact Minimization Measures (AMMs), Best Management Practices (BMPs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
	<p>[SVP]) may recommend paleontological resource monitoring. In the event that monitoring is deemed necessary, the qualified paleontologist shall prepare and the project owner and/or their contractors shall implement, a Paleontological Resources Monitoring and Mitigation Plan (PRMMP), the details of which would be decided based on the significance of the discovery. The plan shall be submitted to the CPUC Project Manager for review before continuing construction activities in the area of the find or as otherwise directed by the qualified paleontologist. This plan shall address specifics of monitoring and mitigation and comply with the recommendations of the SVP (2010), as follows.</p> <ul style="list-style-type: none"> • The qualified paleontologist shall identify, and the project owner and/or its contractor(s) shall retain, qualified paleontological resource monitors (qualified monitors) meeting the SVP standards (2010). • The qualified paleontologist and/or the qualified monitors under the direction of the qualified paleontologist shall conduct paleontological resources monitoring at a frequency and level to be decided based on the significance of the discovery. The PRMMP shall clearly set the parameters of the monitoring. • Monitors shall have the authority to temporarily halt or divert work away from exposed fossils in order to evaluate and recover the fossil specimens, establishing a 50-foot buffer. • If construction or other Project personnel discover any potential fossils during construction, regardless of the depth of work or location and regardless of whether the site is being monitored, work at the discovery location shall cease in a 50-foot radius of the discovery until the qualified paleontologist has assessed the discovery and made recommendations as to the appropriate treatment. • Monitors shall prepare daily logs detailing the types of activities and soils observed, and any discoveries. The qualified paleontologist shall prepare a final monitoring and mitigation report to document the results of the monitoring effort and any curation of fossils. The project owner shall provide the daily logs to the CPUC Project Manager upon request, and shall provide the final report to the CPUC Project Manager upon completion. <p>The qualified paleontologist shall determine the significance of any fossils discovered, and shall determine the appropriate treatment for significant fossils in accordance with the SVP standards. This would be in line with APM PALEO-2, which gives specific details for fossil treatment.</p>			
CEQA MITIGATION MEASURES				
Biological Resources	<p>Mitigation Measure BIO-1: Protection of Kit Fox During Construction. Preconstruction surveys shall be conducted by a qualified biologist for the presence of San Joaquin kit fox within 14 days prior to commencement of construction activities pursuant to the USFWS (1999) <i>Standardized Recommendations for Protection of the San Joaquin Kit Fox</i>. The surveys shall be conducted in areas of suitable habitat for San Joaquin kit fox. Areas that have been disked or cultivated within 12 months prior to the start of ground-disturbing activities are not considered suitable. Surveys need not be conducted for all areas of suitable habitat at one</p>	<p>Applicant and their contractors to implement measure as described for construction of the Orchard Substation Facilities.</p>	<p>Applicant to track compliance; CPUC mitigation monitor to inspect compliance for Orchard Substation Facilities.</p>	<p>Prior to and during construction as defined in mitigation measure.</p>

**TABLE 5-1
TABLE OF MITIGATION MEASURES**

Resource Area	Applicant Proposed Measures (APMs) PG&E Avoidance and Impact Minimization Measures (AMMs), Best Management Practices (BMPs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
	<p>time; they may be phased so that surveys occur within 14 days prior to disturbance within active portions of the site. If no potential San Joaquin kit fox dens are identified, no further mitigation is required. If potential kit fox dens are observed and avoidance is determined to be feasible (as defined in CEQA Guidelines §15364 consistent with the USFWS [1999] <i>Standardized Recommendations for Protection of the San Joaquin Kit Fox</i>) by a qualified biologist in consultation with the Project owner and the County, buffer distances shall be established prior to construction activities.</p> <p>If avoidance of the potential dens is not feasible, the following measures shall be implemented to avoid potential adverse effects to the San Joaquin kit fox:</p> <p>If the qualified biologist determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel to prevent foxes from using them during construction.</p> <p>If the qualified biologist determines that a potential non-natal kit fox den may be active, an on-site passive relocation program shall be implemented with prior approval from the USFWS. This program shall consist of excluding San Joaquin kit foxes from occupied burrows by installation of one-way doors at burrow entrances, monitoring of the burrow for 72 hours to confirm usage has been discontinued, and excavation and collapse of the burrow to prevent reoccupation. After the qualified biologist determines that the San Joaquin kit foxes have stopped using active dens within the Project boundary, the dens shall be hand-excavated, as stated above for inactive dens.</p>			
Geology, Soils, and Seismicity	<p>Mitigation Measure GEO-1: Fault Study. In order to account for any effects related to strong seismic ground shaking due to the presence of the Great Valley thrust fault system, the required supplemental geotechnical report for the Orchard Substation Facilities shall account for the presence of the Great Valley thrust fault system. The report shall be prepared by a qualified geotechnical engineer licensed by the State of California. The report shall include an analysis of the presence of the Great Valley thrust fault system and how its proximity to the Project would inform the seismic design of the Project components.</p>	<p>The Applicant and/or their designated contractors to implement measures as described.</p>	<p>CPUC mitigation monitor to inspect compliance</p>	<p>Prior to construction.</p>
Paleontological Resources	<p>Mitigation Measure GEO-2: Worker Awareness Training and Monitoring Protocols. Prior to the start of any ground-disturbing activity, the project owner shall retain a qualified paleontologist (meeting the standards set by the Society of Vertebrate Paleontology [SVP]) to prepare paleontological resources sensitivity training materials for use during a Project-wide Worker Environmental Awareness Training (WEAP), or equivalent. The WEAP shall be conducted by a qualified environmental trainer working under the supervision of the qualified paleontologist. In the event construction crews are phased, additional trainings shall be conducted for new construction personnel. The training session shall focus on the recognition of the types of paleontological resources that could be encountered within the Project site and the procedures to be followed if they are found. The project owner and/or their contractors shall retain Documentation demonstrating that all construction personnel attended the training prior to the start of work on the site and shall provide the documentation to the CPUC Project Manager upon request.</p>	<p>The Applicant and their designated contractors to implement measures as described.</p>	<p>CPUC mitigation monitor to inspect compliance for Orchard Substation Facilities.</p>	<p>Prior to soil disturbing construction activities.</p>

**TABLE 5-1
TABLE OF MITIGATION MEASURES**

Resource Area	Applicant Proposed Measures (APMs) PG&E Avoidance and Impact Minimization Measures (AMMs), Best Management Practices (BMPs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
<p>Paleontological Resources</p>	<p>Mitigation Measure GEO-3: Paleontological Resource Monitoring, Salvage, and Treatment Protocols. In the event of a discovery during ground disturbance, the procedures described in APM PALEO-1 (and BMP-21) shall be followed; if significant paleontological resources are encountered, the qualified paleontologist (meeting the standards set by the Society of Vertebrate Paleontology [SVP]) may recommend paleontological resource monitoring. In the event that monitoring is deemed necessary, the qualified paleontologist shall prepare and the project owner and/or their contractors shall implement, a Paleontological Resources Monitoring and Mitigation Plan (PRMMP), the details of which would be decided based on the significance of the discovery. The plan shall be submitted to the CPUC Project Manager for review and approval before continuing construction activities in the area of the find. This plan shall address specifics of monitoring and mitigation and comply with the recommendations of the SVP (2010), as follows.</p> <ul style="list-style-type: none"> • The qualified paleontologist shall identify, and the project owner and/or its contractor(s) shall retain, qualified paleontological resource monitors (qualified monitors) meeting the SVP standards (2010). • The qualified paleontologist and/or the qualified monitors under the direction of the qualified paleontologist shall conduct paleontological resources monitoring at a frequency and level to be decided based on the significance of the discovery. The PRMMP shall clearly set the parameters of the monitoring. • Monitors shall have the authority to temporarily halt or divert work away from exposed fossils in order to evaluate and recover the fossil specimens, establishing a 50-foot buffer. • If construction or other Project personnel discover any potential fossils during construction, regardless of the depth of work or location and regardless of whether the site is being monitored, work at the discovery location shall cease in a 50-foot radius of the discovery until the qualified paleontologist has assessed the discovery and made recommendations as to the appropriate treatment. • Monitors shall prepare daily logs detailing the types of activities and soils observed, and any discoveries. The qualified paleontologist shall prepare a final monitoring and mitigation report to document the results of the monitoring effort and any curation of fossils. The project owner shall provide the daily logs to the CPUC Project Manager upon request, and shall provide the final report to the CPUC Project Manager upon completion. • The qualified paleontologist shall determine the significance of any fossils discovered, and shall determine the appropriate treatment for significant fossils in accordance with the SVP standards. This would be in line with APM PALEO-2, which gives specific details for fossil treatment. 	<p>The Applicant and their designated contractors to implement measures as described for the construction of the Orchard Substation Facilities.</p>	<p>CPUC mitigation monitor to inspect compliance for the Orchard Substation Facilities</p>	<p>During Construction.</p>

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(END OF ATTACHMENT A)

Attachment 3:

Copy of Deed

RECORDING REQUESTED BY:
Stewart Title Guaranty Company - Commercial Services

WHEN RECORDED MAIL TO:
MAIL TAX STATEMENT TO:

LS Power Grid California, LLC, a Delaware limited liability company
16150 Main Circle Drive, Suite 310
Chesterfield, MO 63017
Atten: Mark Milburn

ORDER NO. 22000370021
ESCROW NO. 22000370021
APN: Parcel 075-06-67S (por)

Fresno County Recorder
Paul Dictos, CPA
2023-0026353

Recorded at the request of:
ERECORDING PARTNERS NETWORK
03/24/2023 12:59 03
Titles: 1 Pages: 8
Fees: \$32.00
CA SB2 Fees:\$0.00
Taxes: \$2090.00
Total: \$2122.00

SPACE ABOVE THIS LINE FOR RECORDERS USE

GRANT DEED

THE UNDERSIGNED GRANTOR(S) DECLARE(S)

DOCUMENTARY TRANSFER TAX is: \$ 2,090.00 CITY TAX \$
Monument Preservation Fee is: \$

- X computed on full value of property conveyed, or
computed on full value less value of liens or encumbrances
remaining at time of sale.
X Unincorporated area: City of _____,

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

JBC Family I, LLC, a California limited liability company, J. C. & Company I, LLC, a California limited liability, and JAC I LLC, a California limited liability company, (collectively, "Grantor")

hereby **GRANT(S)** to LS Power Grid California, LLC, a Delaware limited liability company (together with its successors and assigns, "Grantee")

the following described real property and easement in an unincorporated area, County of Fresno, State of California:

1. The "Parcel", as more particularly described on EXHIBIT "A" attached; together with,
2. With respect to the "Easement Parcel", as more particularly described on EXHIBIT "A" attached hereto, a non-exclusive easement for:
 - a. Pedestrian and vehicular ingress and egress to and from the Parcel over and across the Easement Parcel, as more particularly described on EXHIBIT "A" ATTACHED HERETO, as reasonably needed or desired by Grantee for the use and enjoyment of the Parcel. Grantor shall not interfere with or prevent Grantee's access across the Easement Parcel;
 - b. The construction, use, maintenance, repair, replacement and removal of roads and/or

pedestrian walkways on, over, across and through the Easement Parcel (along with related improvements and civil works, including, but not limited to, grading and drainage); and

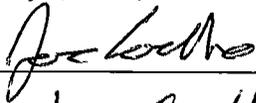
- c. The construction, installation, use, maintenance, replacement, repair and removal of any utilities and related improvements, equipment and facilities, including, but not limited to, electric, water, gas and communications.
- d. Grantor retains the right to continue to use and enjoy the Easement Parcel; provided, that Grantor shall not interfere with (or permit or suffer any condition or activity that is reasonably likely to interfere with) Grantee's use and enjoyment of the Easement Parcel for the purposes set forth herein.

Date: ~~January~~ ^{February} 3, 2023

SEE NEXT PAGE FOR SIGNATURES

MAIL TAX STATEMENT AS DIRECTED ABOVE

JBC Family I, LLC, a California limited liability company

By: 

Name: Joe Coelho

Title: Manager

J. C. & Company I, LLC, a California limited liability

By: 

Name: Jerry Coelho

Title: Manager

JAC I LLC, a California limited liability company

By: 

Name: John Coelho

Title: Manager

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached and not the truthfulness, accuracy, or validity of that document.

State of California
County of Fresno

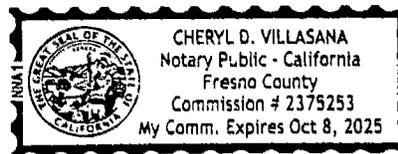
On 2/3/23 before me CHERYL D. VILLASANA, Notary Public personally appeared JOE COELHO, who proved to me on the basis of satisfactory evidence to be the person(s), whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Cheryl D Villason

(seal)



A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached and not the truthfulness, accuracy, or validity of that document.

State of California
County of Fresno

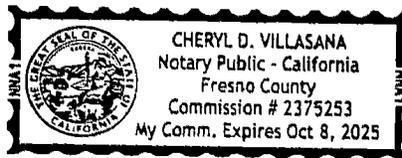
On 2/3/23 before me CHERYL D. VILLASANA, Notary Public personally appeared JERRY COELHO, who proved to me on the basis of satisfactory evidence to be the person(s), whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature *Cheryl Villasana*

(seal)



A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached and not the truthfulness, accuracy, or validity of that document.

State of California
County of Fresno

On 2/3/23 before me CHERYL D. VILLASANA, Notary Public personally appeared JOHN COELHO, who proved to me on the basis of satisfactory evidence to be the person(s), whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature *Cheryl D. Villasana*

(seal)



EXHIBIT "A" LEGAL DESCRIPTION

File No.: 22000370021

Parcel:

That portion of Section 33, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof, being more particularly described as follows:

Beginning at a point on the East line of said Section 33, which lies North 00° 12' 32" East, a distance of 2,800.00 feet from the Southeast corner of said Section 33, said point being the Northeast corner of that certain parcel described in Quitclaim Deed recorded in Book 5842, Page 47 of Official Records, Fresno County Records;

Thence North 89° 34' 52" West, along the North line of said Parcel, a distance of 1,320.08 feet;

Thence North 00° 12' 32" East, a distance of 627.00 feet;

Thence South 89° 34' 52" East, a distance of 1,320.08 feet;

Thence South 00° 12' 32" West, along the East line of said Section 33, a distance of 627.00 feet to the point of beginning.

Containing 19.00 acres.

APN: 075-060-67S (por)

Easement Parcel:

Including an Easement over, under, and across:

That portion of Section 33, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof, being more particularly described as follows:

Beginning at the Southwest corner of said Section 33;

Thence South 89°34'52" East, along the South line of said Section, a distance of 1,079.82 feet, point being the Southwest corner of the PG&E parcel described in the Quitclaim Deed recorded in Book 5842, Page 47 of Official Records, Fresno County Records;

Thence North 0°12'32" East, along the West line of said PG&E parcel, a distance of 2,800.01 feet, to the Northwest corner of said PG&E parcel;

Thence South 89°34'52" East, along the North line of said PG&E parcel, a distance of 143.48 feet, to the Southwest corner of the J.C. & Company I, LLC parcel described in Document 2020-0122986 Official Fresno County Records, said point being the True Point of Beginning;

Thence South 89°34'52" East, along the South line of said J.C. & Company I, LLC parcel to the Southwest corner of Parcel B, a distance of 2,736.27 feet;

Thence North 0°12'32" East, along the West line of said Parcel A, a distance of 35.00 feet;

Thence South $85^{\circ}45'40''$ West, a distance of 61.57 feet;

Thence North $89^{\circ}34'52''$ West, along a line 30 feet North and parallel with the South line of said J.C. & Company I, LLC parcel, a distance of 2,642.76 feet;

Thence North $76^{\circ}31'51''$ West, to the westerly line of said J.C. & Company I, LLC parcel, a distance of 32.79 feet;

Thence South $0^{\circ}31'59''$ West, along the westerly line of said J.C. & Company I, LLC parcel, a distance of 37.40 feet to the True Point of Beginning.

APN: 075-060-67S

Attachment 4:

Copy of IA

INTERCONNECTION AGREEMENT

BETWEEN

LS POWER GRID CALIFORNIA, LLC

AND

PACIFIC GAS AND ELECTRIC COMPANY

FOR THE

GATES 500 KV DYNAMIC REACTIVE SUPPORT

(ORCHARD SUBSTATION) PROJECT

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INTERCONNECTION AGREEMENT

THIS INTERCONNECTION AGREEMENT (“Agreement” or “IA”) is made and entered into this 5 day of October 2022, by and between LS Power Grid California, LLC, a limited liability company existing under the laws of the State of Delaware (“LSPGC” or “Interconnection Customer” or “IC”) and Pacific Gas and Electric Company (“PG&E” or “Transmission Owner” or “TO”), a corporation existing under the laws of the State of California. Interconnection Customer and Transmission Owner each may be referred to as a “Party” or collectively as the “Parties.”

Recitals

WHEREAS, the California Independent System Operator Corporation (“CAISO”) selected, pursuant to its competitive solicitation process and January 17, 2020 Selection Report, Interconnection Customer to build the Gates 500 kV Dynamic Reactive Support Project (“Project” or “Orchard Substation”) that will interconnect to the Gates Substation owned by Transmission Owner. On May 19, 2020, CAISO and Interconnection Customer executed an Approved Project Sponsor Agreement (as amended, supplemented, or otherwise modified from time to time, the “APSA”) for development of the Project;

WHEREAS, the Gates Substation is a portion of the Transmission Owner’s transmission system governed by its Transmission Owner Tariff (“TO Tariff”);

WHEREAS, Interconnection Customer has requested interconnection of the Project to the Gates Substation. On February 14, 2022, PG&E provided Interconnection Customer with a Facility Study Report that specifies and estimates the costs of installing equipment to interconnect the Project to the CAISO Controlled Grid via the Transmission Owner’s Transmission System;

WHEREAS, Interconnection Customer intends to own, control, and operate the Project identified in Appendix C to this Agreement; and,

WHEREAS, Interconnection Customer and Transmission Owner have agreed to enter into this Agreement for the purpose of interconnecting the Project with the Transmission Owner's Transmission System;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein, it is agreed:

When used in this Agreement, terms with initial capitalization that are not defined in Article 1 shall have the meanings specified in the Article in which they are used or, if not defined therein, in the CAISO Tariff.

Article 1. Definitions

Adverse System Impact shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

Affected System shall mean an electric system other than the Transmission Owner's Transmission System that may be affected by the proposed interconnection.

Affected System Operator shall mean the entity that operates an Affected System.

Affiliate shall mean, with respect to a corporation, partnership, or other entity, each such other corporation, partnership, or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership, or other entity.

Applicable Laws and Regulations shall mean all duly promulgated applicable federal, state, and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

Applicable Reliability Council shall mean the reliability council applicable to the Transmission System to which the Project is directly interconnected. At the Effective Date the Applicable Reliability Council is the Western Electricity Coordinating Council ("WECC").

Applicable Reliability Standards shall mean the reliability standards and criteria established by NERC and the Applicable Reliability Council, and applicable standards, procedures and/or protocols of the Balancing Authority Area of the Transmission System to which the Project is directly interconnected.

Backfeed Date shall mean the date upon which backfeed power is initially delivered to the Point of Change of Ownership (“POCO”) and upon which Trial Operation begins.

Balancing Authority Area shall mean an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Balancing Authority Areas and contributing to frequency regulation of the interconnection. CAISO is the Balancing Authority Area for Gates and the Project.

Breach shall mean the failure of a Party to perform or observe any material term or condition of this Agreement.

Breaching Party shall mean a Party that is in Breach of this Agreement.

Business Day shall mean any day other than a Saturday, a Sunday, or a holiday on which the Federal Reserve Bank of New York is not open for business.

CAISO shall mean California Independent System Operator Corporation, the entity with operational control of Gates and the Project.

CAISO Tariff shall mean the California Independent System Operator Corporation Agreement and Tariff, dated March 31, 1997, as it may be modified from time to time.

Calendar Day shall mean any single calendar day; *provided, however*, that if any period of Calendar Days referred to in this Agreement shall end on any day that is not a Business Day, then the expiration of such period shall be automatically extended until the end of the next Business Day.

Commercial Operation shall mean the status of the Project that has commenced the provision of dynamic reactive power support with CAISO operational control, excluding during Trial Operation.

Commercial Operation Date shall mean the date on which the Project commences Commercial Operation as confirmed by CAISO to the Parties.

Confidential Information shall mean, subject to Sections 22.1 and 22.1.2, any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy, or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.

Default shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of this Agreement.

Dispute Resolution shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

Distribution System shall mean the Transmission Owner's facilities and equipment that are not under the operational control of the California Independent System Operator and that are used to transmit electricity to ultimate usage points such as homes and industries within Transmission Owner's retail service area. The voltage levels at which distribution systems operate differ among areas.

Distribution Upgrades shall mean the additions, modifications, and upgrades to the Transmission Owner's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Project and render the transmission service necessary to effect Interconnection Customer's provision in interstate commerce of services and/or products jurisdictional to the FERC associated with the Project. Distribution Upgrades do not include Interconnection Facilities.

Effective Date shall be as defined in Article 2.1 of this Agreement.

Emergency Condition shall mean an abnormal condition or situation: (1) that in the reasonable judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that is reasonably deemed imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the reliability or security of, or damage to, Transmission Owner's Transmission System, Transmission Owner's Interconnection Facilities, the Project, the Interconnection Customer's Interconnection Facilities, the electric systems of others to which the Transmission Owner's Transmission System is directly connected, or Transmission Owner's Distribution System, in each case, that requires immediate automatic or manual action to correct. System restoration and black start shall be considered Emergency Conditions; provided, that Interconnection Customer is not obligated by this Agreement to possess black start capability. Economic hardship of a Party will not constitute an "Emergency Condition".

Environmental Laws shall mean any and all laws, now or hereafter in effect, and any judicial or administrative interpretation thereof, including any judicial or administrative order, consent decree or judgment, relating to the environment, the protection of endangered or threatened species, human health or safety (including aviation safety), or to emissions, discharges, releases or threatened releases of Hazardous Substances into the environment including, without limitation, ambient air, surface water, groundwater, or land, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport, or handling of Hazardous Substances.

Facility Study shall mean that certain engineering study conducted by Transmission Owner pursuant to the Facility Study Agreement.

Facility Study Agreement shall mean that certain Interconnection Facility Study Agreement between the Parties made and entered into on May 1, 2020.

Federal Power Act shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

FERC shall mean the Federal Energy Regulatory Commission ("Commission") or its successor.

Force Majeure shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, earthquake, explosion, breakage or accident to machinery

or equipment, any order, regulation, or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond the reasonable control of the Parties that could not have been avoided through the exercise of Good Utility Practice. A Force Majeure event does not include (1) acts of negligence or intentional wrongdoing by the Party claiming Force Majeure; (2) economic conditions that render a Party's performance of this Agreement unprofitable or otherwise uneconomic; (3) economic hardship of either Party; or (4) failure or delay in granting of necessary permits for reasons not caused by Force Majeure.

Functional Specifications shall mean the "Gates 500kV Dynamic Reactive Support Description and Functional Specifications for Competitive Solicitation" published by CAISO and dated as of March 29, 2019.

Gates means the Gates Substation owned by Transmission Owner on the Effective Date of this Agreement.

Good Utility Practice shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include Interconnection Customer, Transmission Owner, or any Affiliate thereof.

Hazardous Substances shall mean any chemicals, materials or substances defined as or included in the definition of “hazardous substances,” “hazardous wastes,” “hazardous materials,” “hazardous constituents,” “restricted hazardous materials,” “extremely hazardous substances,” “toxic substances,” “radioactive substances,” “contaminants,” “pollutants,” “toxic pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

Indemnified Person shall have the meaning set forth in Section 18.1.

Indemnifying Party shall have the meaning set forth in Section 18.1.

Interconnection Customer is defined in the preamble.

Interconnection Customer’s Interconnection Facilities (or “ICIF”) shall mean all facilities and equipment, as identified in Appendix A of this Agreement, that are located between the Project and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Project to the Transmission Owner’s Transmission System.

Interconnection Facilities shall mean the Transmission Owner’s Interconnection Facilities and the Interconnection Customer’s Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Project and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Project to the Transmission Owner’s Transmission System. Interconnection Facilities shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades as such terms are defined herein.

Interconnection Service shall mean the service provided by the Transmission Owner associated with interconnecting the Interconnection Customer’s Project to the Transmission Owner’s Transmission System.

IRS shall mean the Internal Revenue Service.

Loss shall have the meaning set forth in Section 18.1.

NERC shall mean the North American Electric Reliability Corporation or its successor organization.

Network Upgrades shall mean the additions, modifications, and upgrades to the Transmission Owner's Transmission System required at or beyond the Point of Interconnection to accommodate the interconnection of the Project to the Transmission Owner's Transmission System.

Notice of Dispute shall mean a written notice of a dispute or claim that arises out of or in connection with this Agreement or its performance.

Party or Parties shall mean Transmission Owner, Interconnection Customer, or any combination of the above.

Point of Change of Ownership (or "POCO") shall mean the point, as set forth in Appendix A to this Agreement, where the Interconnection Customer's Interconnection Facilities (or the Project if no ICIFs) connect to the Transmission Owner's Interconnection Facilities.

Point of Interconnection (or "POI") shall mean the point, as set forth in Appendix A to this Agreement, where the Interconnection Facilities connect to the Transmission Owner's Transmission System.

Project shall have the meaning set forth in the Recitals.

Reasonable Efforts shall mean, with respect to an action required to be attempted or taken by a Party under this Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Release shall mean any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any Hazardous Substances) as regulated under any Environmental Law.

System Protection Facilities shall mean the equipment, including necessary protection signal communications equipment, required to protect (1) the Transmission Owner's Transmission System from faults or other electrical disturbances occurring at the Project or Interconnection Customer's Interconnection Facilities, and (2) the Project and Interconnection Customer's Interconnection Facilities from faults or other electrical system disturbances occurring on the Transmission Owner's Transmission System or on other delivery systems or other generating systems to which the Transmission System is directly connected.

TO Tariff shall mean the Transmission Owner's Transmission Owner Tariff, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

Transmission Owner shall mean Pacific Gas and Electric Company, a corporation existing under the laws of the State of California.

Transmission Owner's Interconnection Facilities shall mean all facilities and equipment owned, controlled or operated by the Transmission Owner from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to this Agreement, including any modifications, additions or upgrades to such facilities and equipment. Transmission Owner's Interconnection Facilities shall not include Distribution Upgrades or Network Upgrades as such terms are defined herein.

Transmission System shall mean the facilities owned, controlled or operated by the Transmission Owner that are used to provide transmission service under the TO Tariff. For avoidance of doubt, the term "Transmission System" includes all transmission facilities that the Transmission Owner owns or over which it has entitlements, and as to which the Transmission Owner has transferred to CAISO Operational Control.

Trial Operation shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Project prior to Commercial Operation.

Article 2. Effective Date, Term, and Termination

- 2.1 Effective Date.** This IA shall become effective as of October 5, 2022 (“Effective Date”) subject to execution by the Parties and subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC. Transmission Owner shall promptly file this IA with FERC upon execution in accordance with Article 3.1, if required.
- 2.2 Term of Agreement.** Subject to the provisions of Article 2.3, this IA shall remain in effect for a period of twenty (20) years from the Effective Date and shall be automatically renewed for each successive one-year period thereafter.
- 2.3 Termination Procedures.**
- 2.3.1 Written Notice.** This IA may be terminated by Interconnection Customer after giving Transmission Owner ninety (90) Calendar Days advance written notice, or by Transmission Owner notifying FERC after the Project permanently ceases Commercial Operation.
- 2.3.2 Default.** Either Party may terminate this IA in accordance with Article 17.
- 2.3.3** Notwithstanding Articles 2.3.1 and 2.3.2, no termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this IA, which notice has been accepted for filing by FERC.
- 2.4 [Intentionally Omitted]**
- 2.5 Disconnection.** Upon termination of this IA, the Parties will take all appropriate steps to disconnect the Project from the Transmission System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party’s Default of this IA, or such non-terminating Party otherwise is responsible for these costs under this IA.

2.6 Survival. This IA shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder, including billings and payments pursuant to this IA; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this IA was in effect; and to permit each Party to have access to the lands of the other Party pursuant to this IA or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment.

Article 3. Regulatory Filings

3.1 Filing. Transmission Owner shall file this IA (and any amendment hereto) with the appropriate Governmental Authority, if required. Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Article 22. If Interconnection Customer has executed this IA, or any amendment thereto, Interconnection Customer shall reasonably cooperate with Transmission Owner with respect to such filing and to provide any information reasonably requested by Transmission Owner needed to comply with applicable regulatory requirements.

Article 4. Scope of Service

4.1 Scope of Agreement. This Agreement governs the terms and conditions under which the Interconnection Customer's Project will interconnect with, and operate in parallel with, the Transmission Owner's Transmission System.

4.2 Provision of Service. Transmission Owner shall provide Interconnection Service for the Project at the Point of Interconnection.

4.3 No Agreement to Purchase Power or to Provide Transmission Services. The execution of this IA does not constitute a request for, nor the provision of, any transmission delivery service under the TO Tariff, and does not convey any right to deliver electricity to any specific customer or point of delivery elsewhere on Transmission Owner's system. The purchase or delivery of power and other services that the Interconnection Customer may require will be covered under separate agreements.

The Interconnection Customer will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity with the Transmission Owner and applicable Balancing Authority Area operator.

4.4 Performance Standards. Each Party shall perform all of its obligations under this IA in accordance with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such regulations and standards, such Party shall not be deemed to be in Breach of this IA for its compliance therewith. If such Party is a Transmission Provider or Transmission Owner, then that Party shall coordinate with the other Party to amend the IA as necessary to reflect such limitation and submit the amendment to FERC for approval.

Article 5. Interconnection Facilities and Network Upgrades Engineering, Procurement, and Construction

5.1 Dates. Unless otherwise mutually agreed to between the Parties, Interconnection Customer shall designate, subject to the Transmission Owner's concurrence (such concurrence not to be unreasonably withheld), the Backfeed Date and Commercial Operation Date for completion of Transmission Owner's Interconnection Facilities and Network Upgrades as set forth in Appendix A. Such dates shall be set forth in Appendix B, Milestones.

5.1.1 Transmission Owner's Interconnection Facilities. Interconnection Customer shall design the facilities at the Point of Change of Ownership ("POCO") and the ICIFs, if any, subject to review and approval by Transmission Owner of Interconnection Customer's engineering design. Transmission Owner shall procure and construct Transmission Owner's Interconnection Facilities using Reasonable Efforts to complete Transmission Owner's Interconnection Facilities by the dates set forth in Appendix B, Milestones.

If, at any time, Interconnection Customer determines, in consultation with the CAISO and Transmission Owner, that the completion of the Transmission Owner's Interconnection Facilities will not be required until after the specified energization date set forth in Appendix B, the Interconnection Customer shall provide written notice to the Transmission Owner and to the CAISO of such later date upon which the completion of the Transmission Owner's Interconnection Facilities will be required.

5.1.2 Network Upgrades. Transmission Owner shall design, procure, and construct Network Upgrades using Reasonable Efforts to complete Network Upgrades by the dates set forth in Appendix B, Milestones

5.1.3 General Conditions Applicable to 5.1.1 and 5.1.2. Transmission Owner shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and Applicable Laws and Regulations. In the event Transmission Owner reasonably expects that it may not be able to complete Transmission Owner's Interconnection Facilities and Network Upgrades by the specified dates in Appendix B, Transmission Owner shall promptly provide written notice to Interconnection Customer and to CAISO with the reasons for such failure to meet the identified milestones and shall undertake Reasonable Efforts to meet the earliest dates thereafter.

5.2 [Intentionally Omitted]

5.3 [Intentionally Omitted]

5.4 [Intentionally Omitted]

5.5 Equipment Procurement.

Transmission Owner has initiated preliminary design of the Transmission Owner's Interconnection Facilities and Network Upgrades prior to the Effective Date. Upon the Effective Date, Transmission Owner shall continue such designs, the completion of

which is subject to completion of all the necessary interconnection studies specified in Appendix A.

5.6 Construction Commencement. Transmission Owner shall commence construction of Transmission Owner's Interconnection Facilities and Network Upgrades as soon as practicable after the following additional conditions are satisfied:

5.6.1 Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval;

5.6.2 Necessary real property rights and rights-of-way have been obtained, to the extent required for the construction of a discrete aspect of Transmission Owner's Interconnection Facilities and Network Upgrades;

5.6.3 Transmission Owner has received written authorization to proceed with construction from Interconnection Customer; and

5.6.4 Transmission Owner has provided to Interconnection Customer, at least 30 Calendar Days before commencement of construction, a construction schedule for the Transmission Owner's Interconnection Facilities.

5.7 Work Progress. The Parties will keep each other advised periodically as to the progress of their respective design, procurement, and construction efforts. Either Party may, at any time, request a progress report from the other Party. Transmission Owner shall provide to Interconnection Customer, at least 30 Calendar Days before commencement of construction, a construction schedule for the Transmission Owner's Interconnection Facilities, which the Interconnection Customer shall deliver to CAISO. If, at any time, the Interconnection Customer determines that the completion of Transmission Owner's Interconnection Facilities will not be required until after the specified Backfeed Date, the Interconnection Customer will provide written notice to Transmission Owner of such later date upon which the completion of Transmission Owner's Interconnection Facilities will be required.

- 5.7.1** Every ninety (90) Calendar Days from the Effective Date until the Project is energized and under CAISO Operational Control, the Transmission Owner shall provide to the CAISO and Interconnection Customer an Interconnection Facilities and Network Upgrades status report. Such status report shall include project schedule; permit and license status, including environmental, state, and local permits and licenses; right-of-way acquisition status, if required; land acquisition status, if required; design and engineering status; status of contracts for project work, including land, procurement, and staffing; construction status; testing status; events creating risks and obstacles to project completion; and project budget, including actuals, estimate to complete, and contingency. The format for the report shall be in accordance with CAISO's Business Practice Manual for the Transmission Planning Process.
- 5.7.2** Interconnection Customer intends to submit a development progress status report on the Project to CAISO every ninety (90) Calendar Days. CAISO and/or Interconnection Customer shall forward the Interconnection Customer's report to the Transmission Owner.
- 5.7.3** Interconnection Customer and Transmission Owner shall conduct periodic conference calls and/or meetings to review the status reports delivered pursuant to Sections 5.7.1 and 5.7.2 of this Agreement and to coordinate upcoming activities and discuss project concerns as required to ensure all elements of the projects remain on schedule. Frequency of such calls and/or meetings shall be agreed upon by the Parties but shall be no less frequent than every ninety (90) Calendar Days.
- 5.7.4** CAISO plans to initiate periodic conference calls with Transmission Owner from time to time to review the status reports delivered pursuant to Sections 5.7.1 and 5.7.2 of this Agreement. Transmission Owner shall reasonably cooperate and participate upon CAISO's request.
- 5.8 Information Exchange.** The Parties shall reasonably cooperate to exchange information regarding the design and compatibility of the Parties' facilities identified in Appendix A.

If design changes are requested by a Party in writing, the other Party shall timely evaluate and incorporate or otherwise provide a reasonable written explanation for not incorporating the requested change.

5.9 Limited Operation. If any of the Transmission Owner's Interconnection Facilities or Network Upgrades are not reasonably expected to be completed prior to the Backfeed Date of the Project, Transmission Owner shall, upon the request of Interconnection Customer, perform operating studies on a timely basis to determine the extent to which the Project and Interconnection Customer's Interconnection Facilities may operate prior to the completion of Transmission Owner's Interconnection Facilities or Network Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and this IA. Transmission Owner shall permit Interconnection Customer to operate the Project and Interconnection Customer's Interconnection Facilities in accordance with the results of such studies.

5.10 Interconnection Customer's Interconnection Facilities ("ICIF"). Interconnection Customer shall, at its expense, design, permit, procure, construct, own and install the ICIF, as set forth in Appendix A.

5.10.1 ICIF Specifications. Interconnection Customer shall submit initial specifications for major equipment and/or materials for the ICIF, including System Protection Facilities, to Transmission Owner at least one hundred eighty (180) Calendar Days prior to the Backfeed Date; and final specifications, if materially different from the specifications first submitted under this Article, for review and comment at least ninety (90) Calendar Days prior to the Backfeed Date. Transmission Owner shall review such specifications to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of Transmission Owner and comment on such specifications within thirty (30) Calendar Days of Interconnection Customer's submission. All specifications provided hereunder shall be deemed Interconnection Customer's confidential information.

5.10.2 Transmission Owner's Review. Transmission Owner's review of Interconnection Customer's final specifications shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability or reliability of the Project, or the ICIF. Interconnection Customer shall make such changes to the ICIF as may reasonably be required by Transmission Owner, in accordance with Good Utility Practice, to ensure that the ICIF are compatible with the technical specifications and safety requirements of Transmission Owner.

5.10.3 ICIF Construction. The ICIF shall be designed and constructed in accordance with Good Utility Practice. Within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, Interconnection Customer shall deliver to Transmission Owner "as-built" drawings, information and documents for the ICIF, such as: a one-line diagram, a site plan showing the Project and the ICIF, plan and elevation drawings showing the layout of the ICIF, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with Interconnection Customer's step-up transformers, the facilities connecting the Project to the step-up transformers and the ICIF, and the impedances (determined by factory tests) for the associated step-up transformers and the Project. The Interconnection Customer shall provide Transmission Owner steady state and dynamic data in Power Systems Load Flow (PSLF) model for the Project, ICIF, protection settings, and communications, if applicable. The Transmission Owner shall assess any deviations from the relay settings, Project specifications, and other specifications originally submitted by the Interconnection Customer pursuant to the appropriate provisions of this Agreement.

5.11 Transmission Owner's Interconnection Facilities Construction. Transmission Owner's Interconnection Facilities shall be designed and constructed in accordance with Good Utility Practice. Upon request, within one hundred twenty (120) Calendar Days

after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, Transmission Owner shall deliver to Interconnection Customer “as-built” drawings and relay diagrams, and related information and documents, for Transmission Owner’s Interconnection Facilities.

5.12 Access Rights. Upon reasonable notice and supervision by a Party, and subject to any required or necessary regulatory approvals, a Party (“Granting Party”) shall furnish at no cost to the other Party (“Access Party”) any rights of use, licenses, rights of way and easements with respect to lands owned or controlled by the Granting Party, its agents (if allowed under the applicable agency agreement), or any Affiliate, that are necessary to enable the Access Party to obtain ingress and egress and to construct, operate, maintain, repair, test (or witness testing), inspect, replace or remove facilities and equipment to: (i) interconnect the Project with the Transmission System; (ii) operate and maintain the Project, the Interconnection Facilities and the Transmission System; and (iii) disconnect or remove the Access Party’s facilities and equipment upon termination of this IA. In exercising such licenses, rights of way and easements, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party’s business and shall adhere to the safety rules and procedures established in advance, as may be changed from time to time, by the Granting Party and provided to the Access Party.

5.12.1 Compensation for Interconnection Customer’s Use of Transmission Owner’s Right-of-Way. Notwithstanding any other provision of this IA, Interconnection Customer shall compensate Transmission Owner for such land rights as the Interconnection Customer reasonably requires with respect to such portion of Transmission Owner’s real property or right of way that will contain the Interconnection Customer’s Interconnection Facilities or Project facilities, for the ongoing use represented by the presence of facilities constructed therein. The Parties shall memorialize the terms of such compensation in a separate agreement.

5.13 Lands of Other Property Owners. If any part of Transmission Owner’s Interconnection Facilities and/or Network Upgrades is to be installed on property owned

by persons other than Interconnection Customer or Transmission Owner, Transmission Owner shall at Interconnection Customer's expense use efforts, similar in nature and extent to those that it typically undertakes on its own behalf or on behalf of its Affiliates, including use of its eminent domain authority, and to the extent consistent with applicable law, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to construct, operate, maintain, test, inspect, replace or remove Transmission Owner's Interconnection Facilities and/or Network Upgrades upon such property.

5.14 Permits. The Interconnection Customer will be responsible for obtaining all local, state and federal permits required in order to build and operate the Interconnection Customer's Interconnection Facilities. The Interconnection Customer will include the Interconnection Customer's Interconnection Facilities and the Transmission Owner's Interconnection Facilities in any environmental impact reports Interconnection Customer prepares for these facilities; provided, however, Transmission Owner will be responsible for obtaining all local, state and federal permits required in order to build and operate the Transmission Owner's Interconnection Facilities and Network Upgrades. Transmission Owner and Interconnection Customer shall cooperate with each other in good faith in obtaining all permits, licenses, and authorizations that are necessary to accomplish the interconnection in compliance with Applicable Laws and Regulations. With respect to this paragraph, Transmission Owner shall provide permitting assistance to Interconnection Customer comparable to that provided to Transmission Owner's own, or an Affiliate's generation.

5.15 [Intentionally Omitted]

5.16 Suspension. Interconnection Customer reserves the right, upon written notice to Transmission Owner, to suspend at any time all work by Transmission Owner associated with the construction and installation of Transmission Owner's Interconnection Facilities and/or Network Upgrades required under this IA with the condition that Transmission System shall be left in a safe and reliable condition in accordance with Good Utility

Practice and Transmission Owner's safety and reliability criteria. In such event, prior to canceling or suspending any material, equipment or labor contract, Transmission Owner shall obtain Interconnection Customer's authorization to do so.

In the event Interconnection Customer suspends work by Transmission Owner required under this IA pursuant to this Article 5.16 and has not requested Transmission Owner to recommence the work required under this IA on or before the expiration of three (3) years following commencement of such suspension, this IA shall be deemed terminated. The three-year period shall begin on the date the suspension is requested, or the date of the written notice to Transmission Owner, if no effective date is specified.

5.17 [Intentionally Omitted]

5.18 [Intentionally Omitted]

5.19 Modification.

5.19.1 General. Either Party may undertake modifications to its facilities. If a Party plans to undertake a modification that reasonably may be expected to affect the other Party's facilities, that Party shall provide to the other Party sufficient information regarding such modification so that the other Party may evaluate the potential impact of such modification prior to commencement of the work. Such information shall be deemed to be confidential hereunder and shall include information concerning the timing of such modifications and whether such modifications are expected to interrupt the flow of electricity to and/or from the Project. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Party at least ninety (90) Calendar Days in advance of the commencement of the work or such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed.

In the case of Project modifications that do not require Interconnection Customer to submit an Interconnection Request, Transmission Owner shall provide, within

thirty (30) Calendar Days (or such other time as the Parties may agree), an estimate of any additional modifications to the Transmission System, Transmission Owner's Interconnection Facilities or Network Upgrades necessitated by such Interconnection Customer modification and a good faith estimate of the costs thereof.

5.19.2 Standards. Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed and operated in accordance with this IA and Good Utility Practice.

5.19.3 Modification Costs. Interconnection Customer shall not be responsible for the costs of any additions, modifications, or replacements that Transmission Owner makes to Transmission Owner's Interconnection Facilities or the Transmission System to facilitate the interconnection of a third party to Transmission Owner's Interconnection Facilities or the Transmission System, or to provide transmission service to a third party under the TO Tariff, or for any other reason. Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to Interconnection Customer's Interconnection Facilities that may be necessary to maintain or upgrade such Interconnection Customer's Interconnection Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.

Article 6. Testing and Inspection

- 6.1 Pre-Commercial Operation Date Testing and Modifications.** Prior to the Commercial Operation Date, Transmission Owner shall test Transmission Owner's Interconnection Facilities and Network Upgrades and Interconnection Customer shall initiate tests of the Project and Interconnection Customer's Interconnection Facilities at least forty-five (45) Calendar Days prior to the Commercial Operation Date to ensure their safe and reliable operation. All energized testing shall be coordinated among CAISO, Interconnection Customer and Transmission Owner. Similar testing may be required after initial operation. Interconnection Customer shall test the production and absorption of reactive power by the Project only after it has made any necessary arrangements with CAISO for the production and absorption of such test reactive power.
- 6.2 Post-Commercial Operation Date Testing and Modifications.** Each Party shall at its own expense perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued interconnection of the Project with the Transmission System in a safe and reliable manner. Each Party shall have the right, upon advance written notice, to require reasonable additional testing of the other Party's facilities, at the requesting Party's expense, as may be in accordance with Good Utility Practice.
- 6.3 Right to Observe Testing.** Each Party shall notify the other Party in advance of its performance of tests of its Interconnection Facilities. The other Party has the right, at its own expense, to observe such testing.
- 6.4 Right to Inspect.** Prior to the Commercial Operation Date, each Party shall have the right, but shall have no obligation to: (i) observe the other Party's tests and/or inspection of any of its System Protection Facilities and other protective equipment; (ii) review the settings of the other Party's System Protection Facilities and other protective equipment; and (iii) review the other Party's maintenance records relative to the Interconnection Facilities, the System Protection Facilities and other protective equipment. A Party may exercise these rights from time to time prior to the Commercial Operation Date as it

deems necessary upon reasonable notice to the other Party. The exercise or non-exercise by a Party of any such rights shall not be construed as an endorsement or confirmation of any element or condition of the Interconnection Facilities or the System Protection Facilities or other protective equipment or the operation thereof, or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that a Party obtains through the exercise of any of its rights under this Article 6.4 shall be deemed to be Confidential Information and treated pursuant to Article 22 of this IA.

Article 7. [Intentionally Omitted]

Article 8. Communications

8.1 Interconnection Customer Obligations. Interconnection Customer shall maintain reasonable operating communications with the CAISO and Transmission Owner's Transmission System dispatcher or representative designated by Transmission Owner. Interconnection Customer shall provide standard voice line, dedicated voice line and facsimile communications at its Project control room or central dispatch facility through use of either the public telephone system, or a voice communications system that does not rely on the public telephone system. Interconnection Customer shall also provide the dedicated data circuit(s) necessary to provide Interconnection Customer data to Transmission Owner and the CAISO as set forth in Appendix D, Security Arrangements Details. The data circuit(s) shall extend from the Project to the location(s) reasonably specified by Transmission Owner. Any required maintenance of such communications equipment owned by Interconnection Customer shall be performed by Interconnection Customer. Operational communications shall be activated and maintained under, but not be limited to, the following events: system paralleling or separation, scheduled and unscheduled shutdowns, and equipment clearances.

8.2 Remote Terminal Unit. Prior to the Backfeed Date of the Project, a Remote Terminal Unit, or equivalent data collection and transfer equipment acceptable to the Parties, shall be installed by Interconnection Customer, or by Transmission Owner at Interconnection Customer's expense, to gather accumulated and instantaneous data to be telemetered to

the location(s) designated by Transmission Owner and the CAISO through use of a data circuit(s) as indicated in Article 8.1. The communication protocol for the data circuit(s) shall be reasonably specified by Transmission Owner in coordination with CAISO.

Instantaneous bi-directional analog real power (if any) and reactive power flow information must be telemetered directly to the location(s) reasonably specified by Transmission Owner in coordination with CAISO.

Each Party will promptly advise the other Party if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction by the other Party. The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible.

- 8.3 No Annexation.** Any and all equipment placed on the premises of a Party shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Parties.

Article 9. Operations

- 9.1 General.** Following the Commercial Operation Date each Party shall operate their facilities in accordance with Good Utility Practice, the Applicable Reliability Standards and the applicable requirements set forth in the CAISO Tariff. Each Party shall provide to the other Party all information that may reasonably be required by the other Party to comply with Applicable Laws and Regulations and Applicable Reliability Standards.

- 9.2 [Intentionally Omitted]**

- 9.3 Transmission Owner Obligations.** The Parties understand and acknowledge that Transmission Owner, pursuant to that certain Transmission Control Agreement originally effective as of March 31, 1998, has transferred Operational Control of its transmission facilities to CAISO. Subject to the foregoing, Transmission Owner shall cause the Transmission System and Transmission Owner's Interconnection Facilities to be operated, maintained and controlled in a safe and reliable manner and in accordance with

this IA. CAISO may provide operating instructions to Interconnection Customer consistent with this IA and the Transmission Owner's and CAISO's operating protocols and procedures as they may change from time to time. The Transmission Owner will consider changes to its operating protocols and procedures proposed by Interconnection Customer or CAISO.

9.4 Interconnection Customer Obligations. Interconnection Customer shall at its own expense operate, maintain and control the Project and Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this IA and subject to CAISO Operational Control.

9.5 [Intentionally Omitted]

9.6 Voltage Control.

Once Interconnection Customer has connected the Project with the Transmission System, Interconnection Customer shall use Reasonable Efforts to operate the Project (i) in accordance with voltage schedules provided by Transmission Owner, and (ii) to produce or absorb reactive power within the design limitations of the Project as set forth in the CAISO Functional Specifications. Voltage schedules provided by Transmission Owner to Interconnection Customer, if any, shall treat all sources of reactive power subject to the CAISO's control or direction in an equitable and not unduly discriminatory manner. Transmission Owner shall exercise Reasonable Efforts to provide Interconnection Customer with voltage schedules at the Gates 500 kV bus at least one (1) day in advance, and the CAISO or Transmission Owner (PG&E) may make changes to such schedules as necessary to maintain the reliability of the Transmission System. Interconnection Customer shall use Reasonable Efforts to operate the Project to maintain the specified voltage schedule at the Gates 500 kV bus in a dynamic and automatic manner. If Interconnection Customer is unable to maintain the specified voltage schedule, it shall promptly notify the CAISO and Transmission Owner.

9.6.1 Controller Whenever the Project is operated in parallel with the Transmission System and the voltage controller is capable of operation, Interconnection Customer shall use Reasonable Efforts to operate the Project with its voltage controller in automatic operation. If the Project's voltage controller is not capable of such automatic operation, Interconnection Customer shall immediately notify the Transmission Owner's and CAISO's system operators, or their designated representatives, and use Reasonable Efforts to ensure that such Project's reactive power production or absorption (measured in MVAr) is within the design capability of the Project, and Interconnection Customer shall use Reasonable Efforts not to cause its Project to disconnect automatically or instantaneously from the Transmission System or trip the Project for an under or over voltage condition unless the abnormal voltage condition persists for a time period beyond the limits set forth in NERC/WECC voltage ride through requirement.

9.7 System Protection and Control.

9.7.1 System Protection and Other Control Requirements.

9.7.1.1 System Protection Facilities.

Interconnection Customer shall, at its expense, install, operate and maintain System Protection Facilities as a part of the Project or Interconnection Customer's Interconnection Facilities. Transmission Owner shall install at its own expense any System Protection Facilities that may be required on Transmission Owner's Interconnection Facilities or the Transmission System as a result of the interconnection of the Project and Interconnection Customer's Interconnection Facilities.

9.7.1.2 Each Party's protection facilities shall be designed in accordance with Good Utility Practice and consistent with the requirements of Appendix A.

9.7.1.3 Each Party shall be responsible for protection of its facilities consistent with Good Utility Practice.

9.7.1.4 [Intentionally Omitted]

9.7.1.5 Each Party will test, operate and maintain System Protection Facilities in accordance with Good Utility Practice.

9.7.1.6 Prior to the Backfeed Date, each Party or its agent shall perform a complete calibration test and functional trip test of the System Protection Facilities.

9.7.2 Requirements for Protection. In compliance with Good Utility Practice and consistent with Appendix A, Interconnection Customer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Project to any short circuit occurring on the Transmission System not otherwise isolated by Transmission Owner's equipment,

such that the removal of the fault contribution shall be coordinated with the protective requirements of the Transmission System. Such protective equipment shall include, without limitation, a disconnecting device or switch with load-interrupting capability located between the Project and the Transmission System at a site selected upon mutual agreement (not to be unreasonably withheld, conditioned or delayed) of the Parties.

Article 10. Maintenance

- 10.1 Transmission Owner Obligations.** Transmission Owner shall maintain the Transmission System and Transmission Owner's Interconnection Facilities in a safe and reliable manner and in accordance with Good Utility Practice, the Applicable Reliability Standards, and the applicable requirements set forth in the CAISO Tariff.
- 10.2 Interconnection Customer Obligations.** Interconnection Customer shall maintain the Project and Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with Good Utility Practice, the Applicable Reliability Standards, and the applicable requirements set forth in the CAISO Tariff.
- 10.3 Coordination.** In accordance with the operating procedures developed pursuant to Appendix D, the Parties shall confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Project and the Interconnection Facilities.
- 10.4** [Intentionally Omitted]
- 10.5 Operating and Maintenance Expenses.** Interconnection Customer shall be responsible for all reasonable expenses, including overheads, associated with: Interconnection Customer's owning, operating, maintaining, repairing, and replacing Interconnection Customer's Interconnection Facilities. Transmission Owner shall be responsible for all reasonable expenses, including overheads, associated with the Transmission Owner's Interconnection Facilities.

Article 11. Performance Obligation

11.1 Interconnection Customer Interconnection Facilities. Interconnection Customer, at its sole expense, shall design, permit, procure, construct, install, own and/or control Interconnection Customer's Interconnection Facilities described in Appendix A, if any.

11.2 Transmission Owner's Interconnection Facilities. Transmission Owner, at its sole expense, shall procure, construct, install, own and/or control the Transmission Owner's Interconnection Facilities described in Appendix A. Interconnection Customer shall design the Transmission Owner's Interconnection Facilities at the Point of Change of Ownership subject to review and approval by Transmission Owner, such approval not to be unreasonably withheld, conditioned, or delayed.

11.3 Network Upgrades and Distribution Upgrades. Transmission Owner, at its sole expense, shall design, procure, construct, install, and own the Network Upgrades and Distribution Upgrades described in Appendix A.

11.4 Funding Obligations.

11.4.1 Transmission Owner Obligations. As provided in section 24.14.2 of the CAISO Tariff, where the need for a transmission addition or upgrade is determined by the CAISO, the cost of the transmission addition or upgrade shall be borne by the Participating TO that will be the owner of the transmission addition or upgrade and shall be reflected in its Transmission Revenue Requirement. Accordingly, Transmission Owner shall fund the cost of any Network Upgrades and Transmission Owner's Interconnection Facilities, and Transmission Owner shall seek to obtain recovery through the CAISO Tariff and the Transmission Access Charge.

11.4.2 Special Provisions for Affected Systems.

Interconnection Customer shall be responsible for notifying and coordinating any necessary studies of Affected Systems, such as WECC 2021 Project Coordination

Process or any successor WECC process. If any associated Affected System study determines that mitigation is required to an Affected System as a result of Adverse System Impacts resulting from the Project, Interconnection Customer shall undertake negotiations of one or more agreements with the applicable Affected System Operator(s) to mitigate such Adverse System Impacts, and the cost responsibility shall be determined between Interconnection Customer and the applicable Affected System Operator(s) in such agreement(s). In no event shall the Transmission Owner have any cost responsibility for mitigation of Adverse System Impacts on Affected Systems.

Article 12. Invoice

- 12.1 General.** Each Party shall submit to the other Party, as amounts become due but no more frequently than once per month, invoices of amounts due. Each invoice shall fully describe the services and equipment provided or other justification for the invoiced amount. The Parties may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts a Party owes to the other Party under this IA, including interest payments or credits, shall be netted so that only the net amount remaining due shall be paid by the owing Party.
- 12.2** [Intentionally Omitted]
- 12.3 Payment.** Invoices shall be rendered to the paying Party at the address specified in Appendix G. The Party receiving the invoice shall pay the invoice within thirty (30) Calendar Days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party. Payment of invoices by either Party will not constitute a waiver of any rights or claims either Party may have under this IA.
- 12.4 Disputes.** In the event of a billing dispute between Transmission Owner and Interconnection Customer, Transmission Owner shall continue to provide Interconnection Service under this IA as long as Interconnection Customer: (i) continues to make all

payments not in dispute; and (ii) pays to Transmission Owner or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Interconnection Customer fails to meet these two requirements for continuation of service, then Transmission Owner may provide notice to Interconnection Customer of a Default pursuant to Article 17. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in accord with the methodology set forth in FERC's regulations at 18 CFR § 35.19a(a)(2)(iii).

Article 13. Emergencies

- 13.1 Definition.** "Emergency Condition" is defined in Article 1.
- 13.2 Obligations.** Each Party shall comply with the Emergency Condition procedures of CAISO, NERC, the Applicable Reliability Council, Applicable Laws and Regulations, such Party's Emergency Operating Procedures, and any emergency procedures agreed to by the Parties.
- 13.3 Notice.** Transmission Owner shall notify Interconnection Customer promptly when it becomes aware of an Emergency Condition that affects Transmission Owner's Interconnection Facilities or the Transmission System that may reasonably be expected to affect Interconnection Customer's operation of the Project or Interconnection Customer's Interconnection Facilities. Interconnection Customer shall notify Transmission Owner promptly when it becomes aware of an Emergency Condition that affects the Project or Interconnection Customer's Interconnection Facilities that may reasonably be expected to affect the Transmission System or Transmission Owner's Interconnection Facilities. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of Interconnection Customer's or Transmission Owner's facilities and operations, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice.

13.4 Immediate Action. {Unless, in Interconnection Customer's reasonable judgment, immediate action is required, Interconnection Customer shall obtain the consent of Transmission Owner, such consent to not be unreasonably withheld, prior to performing any manual switching operations at the Project or Interconnection Customer's Interconnection Facilities in response to an Emergency Condition either declared by Transmission Owner or otherwise regarding the Transmission System.

13.5 Transmission Owner Authority.

13.5.1 General. To the extent consistent with Good Utility Practice, Transmission Owner may take whatever actions or inactions with regard to the Transmission System or Transmission Owner's Interconnection Facilities it deems necessary during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Transmission System or Transmission Owner's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service.

Transmission Owner shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Project or Interconnection Customer's Interconnection Facilities. Transmission Owner may, on the basis of technical considerations and in accordance with Good Utility Practice, require the Interconnection Customer to use Reasonable Efforts to mitigate an Emergency Condition by taking actions necessary and limited in scope to remedy the Emergency Condition, including, but not limited to, directing Interconnection Customer to turn on or turn off the Project, increase or decrease the Project's production of reactive power, increase or decrease the Project's absorption of reactive power; implementing a reduction or disconnection pursuant to Article 13.5.2; or altering the outage schedules of the Project and Interconnection Customer's Interconnection Facilities. During an Emergency Condition, Interconnection Customer shall comply with all of Transmission Owner's reasonable operating instructions concerning the Project's production or absorption of reactive power within the manufacturer's design

limitations of the Project's equipment that is in service and physically available for operation at the time, in compliance with Applicable Laws and Regulations and subject to Good Utility Practice.

13.5.2 Reduction and Disconnection. Transmission Owner may reduce Interconnection Service or disconnect the Project or Interconnection Customer's Interconnection Facilities, when such reduction or disconnection is necessary under Good Utility Practice due to Emergency Conditions. These rights are separate and distinct from any right of curtailment of Transmission Owner pursuant to the TO Tariff. When Transmission Owner can schedule the reduction or disconnection in advance, Transmission Owner shall notify Interconnection Customer of the reasons, timing and expected duration of the reduction or disconnection. Transmission Owner shall coordinate with Interconnection Customer using Good Utility Practice to schedule the reduction or disconnection during periods of least impact to Interconnection Customer and Transmission Owner. Any reduction or disconnection shall continue only for so long as reasonably necessary under Good Utility Practice. The Parties shall cooperate with each other to restore the Project, the Interconnection Facilities, and the Transmission System to their normal operating state as soon as practicable, consistent with Good Utility Practice.

13.6 Interconnection Customer Authority. Consistent with Good Utility Practice and the IA and the CAISO Tariff, Interconnection Customer may take actions or inactions with regard to the Project or Interconnection Customer's Interconnection Facilities during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Project or Interconnection Customer's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service. Interconnection Customer shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Transmission System and Transmission Owner's Interconnection Facilities. Transmission Owner shall use Reasonable Efforts to assist Interconnection Customer in such actions.

13.7 Limited Liability. Neither Party shall be liable to the other for any action it takes in responding to an Emergency Condition so long as such action is made in good faith and is consistent with Good Utility Practice.

Article 14. Regulatory Requirements and Governing Law

14.1 Regulatory Requirements. Each Party's obligations under this IA shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this IA shall require Interconnection Customer to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act, the Public Utility Holding Company Act of 1935, as amended, or the Public Utility Regulatory Policies Act of 1978.

14.2 Governing Law.

14.2.1 The validity, interpretation and performance of this IA and each of its provisions shall be governed by the laws of the state of California, without regard to its conflicts of law principles.

14.2.2 This IA is subject to all Applicable Laws and Regulations.

14.2.3 Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

Article 15. Notices.

15.1 General. Unless otherwise provided in this IA, any notice, demand or request required or permitted to be given by either Party to the other and any instrument required or permitted to be tendered or delivered by either Party in writing to the other shall be

effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Party, personally delivered to the Party, or provided via electronic mail, at or to the address(es) set out in Appendix G, Addresses for Delivery of Notices and Billings.

A Party must update the information in Appendix G as information changes. Either Party may change the notice information in this IA by giving five (5) Business Days written notice prior to the effective date of the change. Such changes shall not constitute an amendment to this IA.

15.2 Billings and Payments. Billings and payments shall be sent to the addresses set out in Appendix G.

15.3 Alternative Forms of Notice. Any notice or request required or permitted to be given by a Party to the other and not required by this Agreement to be given in writing may be so given by telephone facsimile or email to the telephone numbers and email addresses set out in Appendix G.

15.4 Operations and Maintenance Notice. Each Party shall notify the other Party in writing of the identity of the person(s) that it designates as the point(s) of contact with respect to the implementation of Articles 9 and 10.

Article 16. Force Majeure

16.1 Force Majeure.

16.1.1 Economic hardship is not considered a Force Majeure event.

16.1.2 Neither Party shall be considered to be in Default with respect to any obligation hereunder, (including obligations under Article 4), other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation hereunder (other than an obligation to pay

money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Party in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon.

Telephone notices given pursuant to this article shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

Article 17. Default

17.1 Default

17.1.1 General. No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this IA or the result of an act of omission of the other Party. Upon a Breach, the non-breaching Party shall give written notice of such Breach to the breaching Party. Except as provided in Article 17.1.2, the breaching Party shall have thirty (30) Calendar Days from receipt of the Default notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Default notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.

17.1.2 Right to Terminate. If a Breach is not cured as provided in this article, or if a Breach is not capable of being cured within the period provided for herein, the non-breaching Party shall have the right to declare a Default and terminate this IA by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this IA, to recover

from the breaching Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this IA.

Article 18. Indemnity, Consequential Damages and Insurance

18.1 Indemnity. Each Party (the “Indemnifying Party”) shall at all times indemnify, defend, and hold the other Party (the “Indemnified Person”) harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, the alleged violation of any Environmental Law, or the release or threatened release of any Hazardous Substance, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties (any and all of these, a “Loss”), to the extent arising out of or resulting from (i) the Indemnifying Party’s action or inactions pursuant to this IA, except in cases where the Indemnifying Party can demonstrate that the Loss of the Indemnified Person was caused by the negligence or willful misconduct of the Indemnified Person, or (ii) the violation by the Indemnifying Party of any Environmental Law or the release by the Indemnifying Party of any Hazardous Substance.

18.1.1 Indemnified Person. If an Indemnified Person is entitled to indemnification under this Article 18 as a result of a claim by a third party, and the Indemnifying Party fails, after notice and reasonable opportunity to proceed under Article 18.1.3, to assume the defense of such claim, such Indemnified Person may at the expense of the Indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

18.1.2 Indemnifying Party. If an Indemnifying Party is obligated to indemnify and hold any Indemnified Person harmless under this Article 18, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person’s actual Loss, net of any insurance or other recovery.

18.1.3 Indemnity Procedures. Promptly after receipt by an Indemnified Person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Article 18.1 may apply, the Indemnified Person shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Party.

Except as stated below, the Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the Indemnifying Party and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the Indemnifying Party, the Indemnified Person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses.

The Indemnified Person shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity of interest between the Indemnified Person and the Indemnifying Party, in such event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Person, and (ii) shall not settle or consent to the entry of any

judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be reasonably withheld, conditioned or delayed.

18.2 Consequential Damages. In no event shall either Party be liable under any provision of this IA for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

18.3 Insurance. Each Party, at its own expense, shall maintain in force throughout the term of this IA, the following minimum insurance coverages, with insurers authorized, with commercially acceptable ratings (ratings of “A-” or better are deemed commercially acceptable) to do business in the state where the Point of Interconnection is located:

18.3.1 Employers’ Liability and Workers’ Compensation Insurance providing statutory benefits in accordance with the laws and regulations of the state in which the Point of Interconnection is located.

18.3.2 Commercial General Liability Insurance including premises and operations, personal injury with no exclusion for death, broad form property damage, broad form blanket contractual liability coverage products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available and a cross liability endorsement, with minimum limits of not less than One Million Dollars (\$1,000,000) per occurrence/Two Million Dollars (\$2,000,000) aggregate combined single limit for personal injury, bodily injury, including death and property damage.

- 18.3.3** Business Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of not less than One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage.
- 18.3.4** Excess Liability/Umbrella Insurance over and above the Employers' Liability Commercial General Liability and Business Automobile Liability Insurance coverage, with a minimum combined single limit of not less than Twenty-Five Million Dollars (\$25,000,000) per occurrence/Twenty-Five Million Dollars (\$25,000,000) aggregate.
- 18.3.5** The Commercial General Liability Insurance, Business Automobile Insurance and Excess Liability Insurance policies shall name the other Party, its parent(s), associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. To the extent reasonably available in the commercial insurance market, all policies shall contain provisions whereby the insurers waive all rights of subrogation in favor of the other Party and provide thirty (30) Calendar Days advance written notice to the Other Party Group prior to anniversary date of cancellation in coverage.
- 18.3.6** The Commercial General Liability Insurance, Business Automobile Liability Insurance and Excess Liability Insurance policies shall contain provisions that specify that the policies are primary and non-contributory. Each Party shall be solely responsible for any deductibles or retentions related to such Party's insurance policies.
- 18.3.7** The Commercial General Liability Insurance, Business Automobile Liability Insurance and Excess Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2) years after termination of this IA, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Parties.

18.3.8 The requirements contained herein as to the types and limits of all insurance to be maintained by the Parties are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Parties under this IA.

18.3.9 Within ten (10) Calendar Days following execution of this IA, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) Calendar Days thereafter, each Party shall provide certification of all insurance required in this IA, executed by each insurer or by an authorized representative of each insurer, including the furnishing of all applicable and required endorsements.

18.3.10 The Parties agree to report to each other in writing as soon as practical all accidents, regardless of anticipated loss or claim amount, or occurrences resulting in injuries to any person, including death, and any property damage arising out of this IA.

Article 19. Assignment

19.1 This IA may be assigned by either Party only with the written consent of the other; provided that either Party may assign this IA without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this IA; and provided further that Interconnection Customer may assign this IA without the consent of Transmission Owner in connection with the sale, merger, restructuring, or transfer of all or a substantial portion of its assets or the Project; and provided further that Interconnection Customer shall have the right to assign this IA, without the consent of Transmission Owner, for collateral security purposes to aid in providing financing for the Project and Interconnection Customer's Interconnection Facilities, provided that Interconnection Customer will promptly notify Transmission Owner of any such assignment. Prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify Transmission Owner of the date and particulars of any such

exercise of assignment right(s), including providing the Transmission Owner with proof that it meets the requirements of Article 18.3. Any attempted assignment that violates this article is void and ineffective. Any assignment under this IA shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

Article 20. Severability

- 20.1** If any provision in this IA is finally determined to be invalid, void, or unenforceable by any court or other Governmental Authority having jurisdiction, such determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this IA.

Article 21. Comparability

- 21.1** The Parties will comply with all applicable comparability and code of conduct laws, rules, and regulations, as amended from time to time.

Article 22. Confidentiality

- 22.1** Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

22.1.1 Term. During the term of this IA, and for a period of three (3) years after the expiration or termination of this IA, except as otherwise provided in this Article 22, each Party shall hold in confidence and shall not disclose to any person Confidential Information.

22.1.2 Scope. Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a

result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this IA; or (6) is required, in accordance with Article 22.1.7 of the IA, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this IA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

22.1.3 Release of Confidential Information. Neither Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements) and its and their subcontractors, employees, or consultants, or to parties who may be providing or considering providing financing to or equity participation with Interconnection Customer (directly or indirectly), or to potential purchasers or assignees of Interconnection Customer or its direct or indirect parent company, on a need-to-know basis in connection with this IA, unless such person has first been advised of the confidential nature of such information. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 22.

22.1.4 Rights. Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each

Party to the other Party of Confidential Information shall not be deemed a waiver by either Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

22.1.5 No Warranties. By providing Confidential Information, neither Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, neither Party obligates itself to provide any particular information or Confidential Information to the other Party nor to enter into any further agreements or proceed with any other relationship or joint venture.

22.1.6 Standard of Care. Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under this IA or its regulatory requirements.

22.1.7 Order of Disclosure. If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires either Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirement(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this IA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

22.1.8 Termination of Agreement. Upon termination of this IA for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from the

other Party, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the other Party) or return to the other Party, without retaining copies thereof, any and all written or electronic Confidential Information received from the other Party pursuant to this IA; provided, however, each Party and their representatives shall be entitled to retain (i) copies of Confidential Information that are necessary to ensure compliance with any applicable state or Federal statutes, laws or regulations or its internal compliance procedures, and (ii) back-up copies of the Confidential Information in the associated back-up or archival computer storage system, provided, that any such Confidential Information so retained shall remain subject to the provisions of this Article 22.

22.1.9 Remedies. The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's Breach of its obligations under this Article 22. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 22, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 22 but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 22.

22.1.10 Disclosure to FERC, its Staff, or a State. Notwithstanding anything in this Article 22 to the contrary, and pursuant to 18 CFR section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence

pursuant to this IA, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 CFR section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this IA prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Party to the IA when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

Article 23. Environmental Matters

- 23.1** Each Party represents that it has at all times complied and is now complying in all material respects with all Environmental Laws applicable to the relevant Transmission Owner and Interconnection Customer properties relevant to this agreement.
- 23.2** Each Party shall comply with the requirements of any governmental approvals, permits, licenses or other authorizations issued under such Environmental Laws with respect to the Project or the Interconnection Facilities.
- 23.3** Each Party shall notify the other Party, first orally and then in writing, of the Release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Project or the Interconnection Facilities that, in each case, may reasonably be expected to affect the other Party. The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four hours after such Party becomes aware of the occurrence; (ii) promptly furnish to the other Party copies of any publicly available reports filed with any Governmental Authorities addressing such events; and (iii) conduct

and complete any investigation, study, sampling and testing and undertake any cleanup, removal, remedial or other action, as required under any Applicable Laws or Regulations, including a lawful order or directive of any Governmental Authority, to remove and clean up all Hazardous Substances Released at, on, in, under or emanating from its property or facilities, except to the extent any such orders or directives are being contested in good faith by appropriate proceedings.

Article 24. Information Requirements

- 24.1 Information Acquisition.** Transmission Owner and Interconnection Customer shall submit specific information regarding the electrical characteristics of their respective facilities to each other as described below and in accordance with Applicable Reliability Standards.
- 24.2 Information Submission by Transmission Owner.** The initial information submission by Transmission Owner shall occur no later than August 15, 2022, and shall include Transmission System information necessary to allow Interconnection Customer to select equipment and meet any system protection and stability requirements, unless otherwise agreed to by the Parties. On a monthly basis Transmission Owner shall provide Interconnection Customer a status report on the construction and installation of Transmission Owner's Interconnection Facilities and Network Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.
- 24.3 Updated Information Submission by Interconnection Customer.** The updated information submission by Interconnection Customer, including manufacturer information, shall occur no later than November 1, 2022. Interconnection Customer shall submit a completed copy of the Project and ICIF data reflected in its Interconnection Request. Information in this submission shall be the most current Project and ICIF design or expected performance data. Information submitted for stability models shall be compatible with Transmission Owner's standard models. If there is no compatible

model, Interconnection Customer will work with a consultant mutually agreed to by the Parties to develop and supply a standard model and associated information.

If Interconnection Customer's data is materially different from what was originally provided to Transmission Owner pursuant to the System Impact Study Agreement between Transmission Owner and Interconnection Customer, then Transmission Owner will conduct appropriate studies to determine the impact on the Transmission System based on the actual data submitted pursuant to this Article 24.3. The Interconnection Customer shall not begin Trial Operation until such studies are completed.

24.4 Information Supplementation. Prior to the Commercial Operation Date, the Parties shall supplement their information submissions described above in this Article 24 with any and all available "as-built" Project information or "as-tested" performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist. The Interconnection Customer shall conduct tests on the Project as required by Good Utility Practice to verify proper operation of the Project's automatic voltage regulator.

Subsequent to the Commercial Operation Date, Interconnection Customer shall provide Transmission Owner any material information changes due to equipment replacement, repair, or adjustment. Transmission Owner shall provide Interconnection Customer any material information changes due to equipment replacement, repair or adjustment in the directly connected substation or any adjacent substation that may affect Interconnection Customer's Interconnection Facilities equipment ratings, protection or operating requirements. The Parties shall provide such information no later than thirty (30) Calendar Days after the date of the equipment replacement, repair or adjustment.

Article 25. Information Access and Audit Rights

25.1 Information Access. Each Party (the "disclosing Party") shall make available to the other Party information that is in the possession of the disclosing Party and is necessary in order for the other Party to: (i) verify the costs incurred by the disclosing Party for

which the other Party is responsible under this IA; and (ii) carry out its obligations and responsibilities under this IA. The Parties shall not use such information for purposes other than those set forth in this Article 25.1 and to enforce their rights under this IA.

25.2 Reporting of Non-Force Majeure Events. Each Party (the “notifying Party”) shall notify the other Party when the notifying Party becomes aware of its inability to comply with the provisions of this IA for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this article shall not entitle the Party receiving such notification to allege a cause for anticipatory breach of this IA.

25.3 Audit Rights. Subject to the requirements of confidentiality under Article 22 of this IA, each Party shall have the right, during normal business hours, and upon prior reasonable notice to the other Party, to audit at its own expense the other Party’s accounts and records pertaining to either Party’s performance or either Party’s satisfaction of obligations under this IA. Such audit rights shall include audits of the other Party’s costs, calculation of invoiced amounts, Transmission Owner’s efforts to allocate responsibility for the provision of reactive support to the Transmission System, Transmission Owner’s efforts to allocate responsibility for interruption or reduction of generation on the Transmission System, and each Party’s actions in an Emergency Condition. Any audit authorized by this article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to each Party’s performance and satisfaction of obligations under this IA. Each Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article 25.4.

25.4 Audit Rights Periods.

25.4.1 Audit Rights Period for Construction-Related Accounts and Records.

Accounts and records related to the design, engineering, procurement, and construction of Transmission Owner's Interconnection Facilities and Network Upgrades shall be subject to audit for a period of twenty-four months following Transmission Owner's issuance of a final invoice in accordance with Article 12.2.

25.4.2 Audit Rights Period for All Other Accounts and Records. Accounts and records related to either Party's performance or satisfaction of all obligations under this IA other than those described in Article 25.4.1 shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four months after the auditing Party's receipt of an invoice giving rise to such cost obligations; and (ii) for an audit relating to all other obligations, the applicable audit rights period shall be twenty-four months after the event for which the audit is sought.

25.5 Audit Results. If an audit by a Party determines that an overpayment or an underpayment has occurred, a notice of such overpayment or underpayment shall be given to the other Party together with those records from the audit which support such determination.

Article 26. Subcontractors

26.1 General. Nothing in this IA shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this IA; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this IA in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

26.2 Responsibility of Principal. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this IA. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event

shall Transmission Owner be liable for the actions or inactions of Interconnection Customer or its subcontractors with respect to obligations of Interconnection Customer under Article 5 of this IA. Any applicable obligation imposed by this IA upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

26.3 No Limitation by Insurance. The obligations under this Article 26 will not be limited in any way by any limitation of subcontractor's insurance.

Article 27. Disputes

27.1 Submission. In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this IA or its performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this IA.

27.2 External Arbitration Procedures. Any arbitration initiated under this IA shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial

business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association (“Arbitration Rules”) and any applicable FERC regulations rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article 27, the terms of this Article 27 shall prevail.

27.3 Arbitration Decisions. Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this IA and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

27.4 Costs. Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

Article 28. Representations, Warranties, and Covenants

28.1 General. Each Party makes the following representations, warranties and covenants:

28.1.1 Good Standing. Such Party is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or

incorporated, as applicable; that it is qualified to do business in the state or states in which the Project, Interconnection Facilities and Network Upgrades owned by such Party, as applicable, are located; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this IA and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this IA.

28.1.2 Authority. Such Party has the right, power and authority to enter into this IA, to become a Party hereto and to perform its obligations hereunder. This IA is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

28.1.3 No Conflict. The execution, delivery and performance of this IA does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.

28.1.4 Consent and Approval. Such Party has sought or obtained, or, in accordance with this IA will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this IA, and it will provide to any Governmental Authority notice of any actions under this IA that are required by Applicable Laws and Regulations.

Article 29. [Intentionally Omitted]

Article 30. Miscellaneous

- 30.1 Binding Effect.** This IA and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 30.2 Conflicts.** In the event of a conflict between the body of this IA and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this IA shall prevail and be deemed the final intent of the Parties.
- 30.3 Rules of Interpretation.** This IA, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person’s successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this IA, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this IA), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this IA or such Appendix to this IA, or such Section to the CAISO Tariff or such Appendix to the CAISO Tariff, as the case may be; (6) “hereunder”, “hereof”, “herein”, “hereto” and words of similar import shall be deemed references to this IA as a whole and not to any particular Article or other provision hereof or thereof; (7) “including” (and with correlative meaning “include”) means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, “from” means “from and including”, “to” means “to but excluding” and “through” means “through and including”.
- 30.4 Entire Agreement.** This IA, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter

hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this IA. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this IA.

30.5 No Third-Party Beneficiaries. This IA is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

30.6 Waiver. The failure of a Party to this IA to insist, on any occasion, upon strict performance of any provision of this IA will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by either Party of its rights with respect to this IA shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this IA. Termination or Default of this IA for any reason by Interconnection Customer shall not constitute a waiver of Interconnection Customer's legal rights to obtain an interconnection from Transmission Owner. Any waiver of this IA shall, if requested, be provided in writing.

30.7 Headings. The descriptive headings of the various Articles of this IA have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this IA.

30.8 Multiple Counterparts. This IA may be executed in two or more counterparts, each of which is deemed an original, but all constitute one and the same instrument.

30.9 Amendment. The Parties may by mutual agreement amend this IA by a written instrument duly executed by the Parties.

- 30.10 Modification by the Parties.** The Parties may by mutual agreement amend the Appendices to this IA by a written instrument duly executed by the Parties. Such amendment shall become effective and a part of this IA upon satisfaction of all Applicable Laws and Regulations.
- 30.11 Reservation of Rights.** Transmission Owner shall have the right to make a unilateral filing with FERC to modify this IA with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this IA pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this IA shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- 30.12 No Partnership.** This IA shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

IN WITNESS WHEREOF, the Parties have executed this IA in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

PACIFIC GAS AND ELECTRIC COMPANY

By: DocuSigned by:
Patricia K Poppe
33D68025E2F24D4...

Name: Patricia K Poppe

Title: CEO

Date: 10/5/2022 | 10:47:30 PDT

LS POWER GRID CALIFORNIA, LLC

By: DocuSigned by:
Mark D. Milburn
6F4C40E73739458...

Name: Mark D. Milburn

Title: Senior Vice President

Date: 10/5/2022 | 7:48:12 PDT

Appendix A

Project Information and Interconnection Plan

In the 2018-2019 Transmission Planning Cycle, the CAISO governing board approved a reliability-driven Project in the Fresno Division of the PG&E service territory. The Project will provide a +/-800 MVAR dynamic reactive power support connecting to the Gates 500 kV bus to ensure reliability in a major portion of the CAISO controlled grid¹.

The scope of this project is to install in a minimum of two equally sized blocks of reactive devices independently connected to the 500 kV system at PG&E's Gates Substation. The reactive power support is required to provide continuous dynamic reactive power output over the complete range of the capability (unless the facility experienced a planned or forced outage). Sub-synchronous Resonance (SSR) studies are required to be completed and any identified mitigation shall be implemented as part of this project.

The following are the Functional Specifications as described in CAISO's Gates 500kV Dynamic Reactive Support Description and Functional Specifications for Competitive Solicitation document ².

Point of Interconnection: Gates 500 kV bus

Rated Real Power Output: 0 MW

Rated MVAR: +800/-800 MVAR at the Gates 500 kV bus. The entire inductive (absorption) range shall be continuously available when the voltage is in the 500 kV – 550 kV range and the

¹ ISO Board Approved 2018-2019 Transmission Plan. March 29, 2019.

² Gates 500kV Dynamic Reactive Support Description and Functional Specifications for Competitive Solicitation. March 29th, 2019.

entire capacitive (injection) range shall be available when the voltage is in the 473 kV – 540 kV range.

Response time: The time required for the output to go from 10% of the final value to 90% of the final value shall be less than 100 ms.

Nominal Terminal Voltage: 500 kV (typically the bus voltage is at 530 kV)

Latest Commercial Operation Date: June 1, 2024

Inverter Ride Through Capability: NERC PRC-024 requirements and NERC industry recommendation on momentary cessation.

Availability and Reliability requirements: The Project shall be designed for high availability. The functional specification specified in CAISO’s “Gates 500kV Dynamic Reactive Support Description and Functional Specifications for Competitive Solicitation” does not specify the method of control for providing reactive support. These details need to be defined through further study and collaboration with CAISO and LSPGC (IC). It is expected the control will be based on 500 kV voltages but may include additional parameters based on final control methodology.

**Table A.1
General Project Information**

Project Location	North of PG&E’s Gates Substation, Huron, CA. in Fresno County
PG&E Planning Area	Fresno
Project Coordinates	Latitude: 36° 8’ 47.53” N Longitude: 120° 7’ 27.72” W

Primary Voltage (kV)	500 kV
STATCOM Capacities	The Project planned by LSPGC consists of two (2) independent approximately 424MVAR STATCOM blocks, for a total Project reactive capability of approximately 848 MVAR.
Project In-Service Date	The proposed In-Service Date for the Project is April 2024.

Interconnection Facilities, Network Upgrades and Distribution Upgrades

Pursuant to CAISO’s January 17, 2020, Gates 500 kV Dynamic Reactive Support Project - Project Sponsor Selection Report, and section 10, Volume No. 5 of the TO Tariff, Interconnection Customer submitted an Interconnection Facility Study Request to interconnect the Project to PG&E’s 500 kV Gates Substation. The Project’s two Points of Interconnection (POI) will terminate on the Gates Substation 500kV Breaker and a Half (BAAH) bay # 1 and 2. Facility Study Agreement between the Interconnection Customer and PG&E was signed on May 1, 2020.

PG&E has subsequently performed this Facility Study and issued a Facility Study Report, dated as of February 14, 2022, (FSR) that specifies and estimates the cost of installing equipment needed to interconnect the Project to the CAISO controlled grid. The FSR follows the requirements of the Project set forth in the Approved Project Sponsor Agreement which was executed on May 19, 2020. The FSR provides:

1. Identification of the Point of Interconnection (POI) and the Point of Change of Ownership (POCO) designations, telemetry requirements, and telecommunication, protection, metering and land requirements.

2. Work scope and cost estimates for the Interconnection Facilities³ necessary to interconnect the Project to the CAISO controlled grid.
3. Work scope for the Network Upgrades⁴ necessary to interconnect the Project to the CAISO controlled grid beyond the POI and mitigate the adverse impacts of the Project under various system conditions.

The estimated cost of the Interconnection Facilities is **\$95,510,000 Million**⁵. The estimated cost of the Network Upgrades is **\$32,000,000 million**. The total interconnection cost is **\$127,510,000 million**. PG&E will fund these costs and seek to recover these costs in its TO rates.

Point of Interconnection (“POI”)

The Facility Study has determined that LSPGC’s 500kV STATCOM station will have two POIs to the CAISO controlled grid as represented in Appendix C. The two POIs are on the Gates 500kV Breaker-and-a-half (BAAH) bus to be located on:

- Bay 1 connecting between existing circuit breaker #612 and a required new circuit breaker #712 to complete the bay
- Bay 2 connecting between two circuit breakers #622 and #722 with the Bank 12 connection to be moved to the South terminal of Bay 2 between circuit breaker #622 and an additional breaker #522 to complete this existing bay.

In addition, two 500kV breakers are required at the customer facility that will provide a means of isolation from any disturbances within the STATCOM facility that could affect the PG&E

³ The transmission facilities necessary to physically and electrically interconnect the Project to the CAISO controlled grid at the point of interconnection.

⁴ The transmission facilities necessary to interconnect the Project safely and reliably to the CAISO controlled grid, beyond the point of interconnection

⁵ The estimated cost of the Interconnection Facilities excludes the Income Tax Component of Contribution.

system and is in line with Good Utility Practice. LSPGC's STATCOM facility, known as the Orchard substation, will be interconnected to:

- a. Gates Substation via the new Gates-Orchard 500kV line #1
- b. Gates Substation via the new Gates-Orchard 500kV line #2

Point of Change of Ownership (“POCO”)

The POCO locations are also defined in Figure A.1 with the change of ownership to be located on the LSPGC dead-ends that need to be fenced separately from the STATCOM facility with access gates and roadways installed to allow PG&E T-line crews the ability to perform 500 kV tie-line maintenance without having to enter LSPGC's STATCOM facility. PG&E will terminate its conductor on the LSPGC dead-end structures and provide NEMA 4-hole pads on the dead-end assembly. LSPGC will provide and install the transmission line jumpers to such pads at these dead-end structures which will provide a clear demarcation between PG&E and LSPGC facilities. PG&E will also route fiber from Gates to the LSPGC splice box located near the dead-end structures.

- 1. LSPGC to install two (2) new 500kV dead-end structures on LSPGC substation property. PG&E will own and maintain two (2) new 500kV dead-ends on PG&E property and the overhead tie-lines to the LSPGC dead-ends. PG&E dead-end structure placements will be coordinated between PG&E and LSPGC.
- 2. Manual 500 kV disconnect and ground switches will be installed at the PG&E dead-ends to provide a visual open point before the transition from overhead to underground cable. This allows PG&E to route the two 500 kV tie-line connections to BAAH bays one (1) and two (2) crossing under existing 230 kV and 70 kV lines.

A.1 Interconnection Facilities

A.1.1 Transmission Owner's Interconnection Facilities

The Transmission Owner's Interconnection Facilities consist of all facilities and equipment located between the POCO and the POI required to establish this interconnection and are listed in Table A.2.

The Facility Study evaluation determined the Transmission Owner's Interconnection Facilities work scope. These include all substation and t-line engineering, design, and construction activities from the POCO to the POI. The final Transmission Owner's Interconnection Facilities work scope will be determined after detailed design and engineering is completed. The work scope includes, but is not limited to:

- Pre-parallel inspection, protection review, SCADA/EMS telemetry setup, revenue metering, and general engineering support.
- Install & Test Protection schemes, fiber, SCADA and telecom and RTDS testing
- Cost estimates for the Interconnection Facilities are summarized in Table A-2.
- These facilities are necessary to interconnect the Project physically and electrically from the POCO to the POI on the CAISO controlled grid.

Table A-2: Estimated Cost and Time to Construct for Interconnection Facilities – IF

Type of Upgrade	Upgrade	Description	Cost Allocation Factor	Estimated Cost x 1,000
PTO's Interconnection Facilities	Interconnection Facilities on LSPGC property (communications)	<ul style="list-style-type: none"> Engineering Reviews, Pre-parallel Inspection, and Project Management 	100%	\$370
		<ul style="list-style-type: none"> Fiber Terminations⁶ 	100%	\$100
		<ul style="list-style-type: none"> Install two (2) line current differential fiber, Configure and Test Line relay setting, Configure & Test RTU to RTU communications, and ISTS Testing⁷ including RTDS testing 	100%	\$195
	Interconnection Facilities on PG&E property⁸ (Substation & T-line)	<ul style="list-style-type: none"> Install two (2) 500kV tie lines that are a combination of Overhead and Gas Insulated Bus (GIB) from the POI to the POCO which is on LSPGC property Install six (6) 500kV Dead-ends with line disconnect and four (4) ground switches 	100%	\$94,770
	Los Banos Substation	<ul style="list-style-type: none"> 500kV remote end relay testing using RTDS 	100%	\$25
	Midway Substation	<ul style="list-style-type: none"> 500kV remote end relay testing using RTDS 	100%	\$25
	Diablo Canyon 500kV Switchyard	<ul style="list-style-type: none"> 500kV remote end relay testing using RTDS 	100%	\$25
				Total

⁶ All protective relaying requirements (update after Preliminary Protection Requirements (PPR))

⁷ Substations abutting or within PG&E territory are required to provide real time telemetry data to the PG&E control center. The RTU fulfills this requirement by providing EMS and SCADA visibility in real time to PG&E operators.

⁸ LSPGC will install the 500kV dead-end POCO structures in such a manner as to limit PG&E's tie-line lengths to less than 300 feet per span over LSPGC's property.

Note 1: The estimated costs are in 2021 dollars and are found in the published per unit table on the CAISO website if they apply.

Environmental

PG&E is subject to the jurisdiction of the California Public Utilities Commission (CPUC) and must comply with CPUC General Order 131-D (Order) on the construction, modification, alteration, or addition of all electric transmission facilities (i.e., lines, substations, switchyards, etc.).

LSPGC will include in CPUC's CEQA review of the Project, PG&E's TO Interconnection Facilities and Network Upgrades. However, PG&E shall be responsible to obtain any permits or approvals required to construct its new facilities including pursuant to the Order.

LSPGC is also subject to CPUC General Order 131-D and will obtain all necessary approvals from the CPUC for the Project and ICIFs prior to commencing construction on LSPGC's scope.

Protection & Control

Preliminary protection requirements are specified in Appendix A-1.

Studies

Transmission Owner will perform additional system impact studies in collaboration with Interconnection Customer, including but not limited to short-circuit duty, an EMT study and an SSR study. In addition, the parties will collaborate to determine the STATCOM control methodology for providing reactive support.

A.1.2 Interconnection Customer's Interconnection Facilities

The Interconnection Customer's Interconnection Facilities (ICIF) consist of all facilities and equipment located between the POCO and the Project required to establish this interconnection. The IC shall design the dead-end structures to which Transmission Owner's Interconnection Facilities will connect. The ICIF shall be limited to i) the two dead-end structures and associated jumpers and hardware

assemblies at the 500 kV POCO, and ii) two fiber optic splice boxes at the communications POCO. The Interconnection Customer will be solely responsible to procure, install, operate, and maintain the ICIFs.

A.2 Network Upgrades

The substation evaluation determined the Network Upgrades work scope for which the Project requires to be placed into service. These include all substation engineering, design, and construction activities at or beyond the POI. The final Network Upgrades work scope will be determined after detailed design and engineering is completed. The work scope includes, but is not limited to:

- Gates substation yard grading on the North end of the 500 kV Bays 1 & 2
- Modify Gates 500 kV Bays 1 & 2 with a breaker and switch additions in the Gates substation 500 kV BAAH yard.
- Relay installation work at PG&E's Gates Substation and other possible changes at 500 kV remote end terminals.

The cost estimates for the Network Upgrades are summarized in Table A.3. These facilities are necessary to connect the Project physically and electrically to the CAISO-controlled grid, beyond the POI.

A.2.1 Stand Alone Network Upgrades

None.

A.2.2 Other Network Upgrades

The Network Upgrades listed in Table A.3 are required to accommodate the interconnection of the Project.

Table A.3 Network Upgrades Cost Estimate

Type of Upgrade	Upgrade	Description	Estimated Cost x 1,000
Network Upgrades Substation	Gates Substation	<ul style="list-style-type: none"> • Grade areas for substation expansion on the North side of Bays 1 & 2 • Install new 500kV 3000 Amp 63kA CB712 on existing Bay 1 to allow the first STATCOM POI termination #1 • Install new 500kV 3000 Amp 63kA CB522 on existing Bay 2 to allow the relocation of the Bank 12 500 kV connection from the North to the South terminal of Bay 2 (STATCOM’s second line to terminate on the North end of Bay 2) • Install two additional 500 kV disconnect switches in Bay #1 • Install two additional 500 kV disconnect switches in Bay #2 • Install Indoor racks and relays for breaker controls • Replace Phasor Measurement Unit (PMU) relays • PACIRAS modification/additions 	\$32,000
		Total	\$32,000

A.3 Distribution Upgrades

None.

A.4 Transmission Customer's Project Requirements

Communications

The Project Sponsor shall maintain satisfactory operating communications with the CAISO in accordance with the provisions of the CAISO Tariff and with the Interconnection PTO's dispatcher or representative designated by the Interconnection PTO. The Project Sponsor shall provide standard voice line, dedicated voice line and facsimile communications at its Facility control room or central dispatch facility through use of either the public telephone system, or a voice communications system that does not rely on the public telephone system. The Project Sponsor shall also provide the dedicated data circuit(s) necessary to provide Project Sponsor data to the Interconnection PTO to the POCO. The data circuit(s) shall extend from the Facility to the location(s) specified by the CAISO.

Protection & Control

Preliminary protection requirements are specified in Appendix A-1.

Metering

Station service power will be metered on the low side of the station service transformer, following the TO Tariff. A two percent (2%) adjustment factor will be applied for each stage of transformation for low side metering, unless the Transmission Owner and Interconnection Customer agree that specific transformer manufacturer test data support a different transformer loss adjustment.

Interconnection Customer shall comply with any Applicable Reliability Standards and the Applicable Reliability Council requirements. It is the responsibility of the Interconnection Customer to provide the necessary structures, substructures, foundations, and disconnect switches for mounting and connection of the metering equipment.

The meter location and grounding must meet all the requirements of IEEE-80 for equipment safety and touch and step potential protection. Specific design details should be presented for review and approval prior to construction.

Appendix A-1

[Appendix C – Preliminary Protection Requirements from Facility Study Report]

NOTE: Interconnection Customer is subject to the applicable sections of PG&E’s Transmission Interconnection Handbook as a “Transmission Entity.”

See Attached Final Protection Requirements Below for Gates STATCOM Project Interconnecting to Gates 500kV Substation Revision 10

Final Protection Requirements for Gates STATCOM Project Interconnecting to Gates 500kV Substation Revision 10

1. Scope:

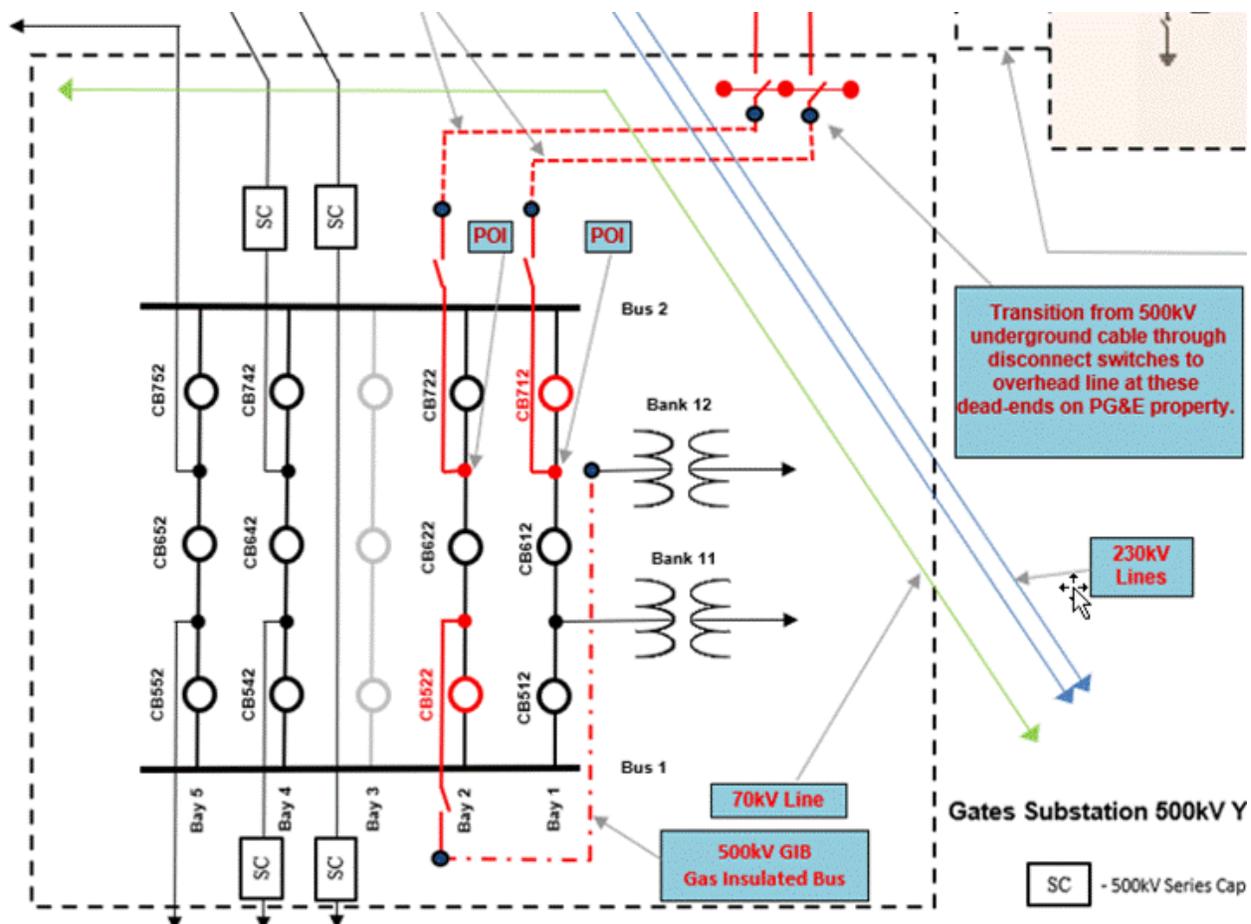
These protection requirements define the 500kV protection work required for the Gates STATCOM 500kV Interconnection Project. The requirements are for estimating purposes and are based on the following information and assumptions:

- a. Gates Bank #11 Replacement project complete and in service.
- b. Proposed preliminary interconnection diagram, latest mark-up dated 2-11-2021.
- c. Existing Fault Duties prior to addition of Gates STATCOM and new fault duties after Gates STATCOM addition.

- d. The project will consist of two 500kV interconnections between Gates 500kV substation and Gates STATCOM facility. The Gates STATCOM will be constructed with two 3-phase 500/97.5kV transformer banks connected Wye/Delta and a third identical bank to acting as a spare. The bank connections and impedances will be verified. Excerpts from the bank test reports containing connections, no-load taps, impedance, load loss data, etc. shall be provided by LS Power for accurate modeling of the bank in PG&E's short circuit model.
- e. Each of the two new 500kV lines associated with this project will consist of underground and overhead components and will be connected as follows:
 - a. At Gates 500kV Substation: One line will terminate in existing Bay 2 between existing CB 622 and existing CB 722. This connection will be contingent on re-location of Gates Bank #12 500kV termination to the following: between existing CB 622 and new CB 522 in Bay 2.
 - b. The second line will terminate in existing Bay 1 between existing CB 612 and new CB 712.
 - c. At Gates STATCOM Substation: Each line will terminate to one new 500kV breaker at Gates STATCOM substation.
- f. Substation engineering shall provide final single-line diagrams of Gates 500kV BAAH and Gates STATCOM substation before protection requirements are finalized.

2. **Proposed preliminary interconnection Diagram**

Below is the proposed diagram of interconnection based on the ultimate Gates Single Line as per Figure 3.1 of the Facilities Study. The interconnection diagram is subject to changes during the future walkdowns and meetings.



3. System Fault Duties:

PGE20-06-FUT_GEN_BASECASE_2025 CASE_312_322_01-27-2021.OLR.

Sys. Pro. Results		Short Circuit Currents on Selected Busses for the Proposed Project (AMPS)						
27-Jan-21		Case 1		Case 2		DEVIATION		
Proposed Project: GATES STATCOM		Base Case System		Case 1 + Addition of Proposed Project		PERCENT INCREASE(+) OR DECREASE(-) (Columns 2 over Columns 1)		
	Bus Name	kV	3LG (A) P	1LG (A) P	3LG (A) P	1LG (A) P	3LG %DIF F	1LG %DIF F
1	DIABLO CANYN	525	20.1E+3	22.2E+3	20.1E+3	22.2E+3	0.0%	0.1%
2	GATES	230	46.5E+3	46.4E+3	46.5E+3	48.7E+3	0.0%	5.0%
3	GATES	525	28.0E+3	22.8E+3	28.0E+3	26.5E+3	0.0%	16.5%
4	GATES BUS11	230	46.1E+3	46.0E+3	46.1E+3	48.3E+3	0.0%	4.9%

5	GT STATCOM	525	000.0E+ 0	000.0E+ 0	27.5E+ 3	25.9E+ 3	N/A	N/A
6	GT_STATCM_ 1	97. 5	000.0E+ 0	000.0E+ 0	15.1E+ 3	200.0E- 3	N/A	N/A
7	GT_STATCM_ 2	97. 5	000.0E+ 0	000.0E+ 0	15.1E+ 3	200.0E- 3	N/A	N/A
8	LOS BANOS	525	32.6E+3	22.6E+3	32.6E+ 3	22.9E+ 3	0.0%	1.3%
9	MIDWAY	525	42.3E+3	30.6E+3	42.3E+ 3	30.8E+ 3	0.0%	0.8%

The values above are preliminary and are based on the following:

- Bank data detailed in the Preliminary Single Line Diagram provided by LS Power
- 500kV Tie-line length of 1mile for each line using overhead conductor characteristics
- Q1479 NOT in service
- Q1117 in service (230kV Aquamarine Solar)
- New Gates Bank #11 in service
- Spare 424 MVA Bank at STATCOM facility is normally not in service and is not a source of zero sequence current under normal operating conditions.

These values and assumptions shall be revisited following:

- Submittal of Bank Test reports by LS Power (in lieu of providing complete bank test report, LS Power to provide excerpts of the report with data required to develop accurate ASPEN model such as bank connection, no-load taps, impedances, load loss, etc.)
- Submittal of Tie-Line details by the project.
- Confirmation of assumptions.

4. System Study Recommendations and Assumptions:

- Assume the Gates STATCOM station to be located approximately 1.0 mile from Gates 500kV BAAH yard
 - This short line will not accommodate standard distance POTT Scheme. All line protection will be Current Differential.
- Real Time Digital Simulator (RTDS)-based tests to validate the 500kV system protection performances.
 - It is PG&E's standard practice that 500kV line protection are tested and validated thru RTDS tests. With the Gates STATCOM addition, it is required to test all 500kV line protections at Gates and remote ends (Gates STATCOM station, Los Banos, Midway, and Diablo Canyon) using RTDS. Please note the RTDS-based protection tests are performed at a 3rd party facility. PG&E and LS Power will each pay 50% of the cost of the RTDS tests.
 - It is required that the LS Power provide RTDS-based models for the added facilities to PG&E in order to perform RTDS-based tests. The models should include inverters and the controllers, step-up transformers, tie-line, etc.

- PG&E will update the existing RTDS models upon receiving Gates STATCOM interconnection model. For RTDS testing purposes assume 1-week per line to verify new relays and settings. (3-weeks at third party facility for testing)
- This is the first STATCOM directly connected to PG&E 500kV system. Some unique phenomena and problems, such as sub-synchronous control interaction (SSCI) may arise due to the interactions between inverters and series-compensated 500kV lines. PG&E will conduct an EMT study to evaluate the SSCI risk and other potential system impacts, such as reactive control coordination. PG&E will also provide technical support for LS Power to design reliability performance of the STATCOM. PG&E will provide the study results and modeling information to LS Power as appropriate. Detailed terms will be specified in the EMT study agreement. LS Power must perform, at its cost, an additional study to evaluate the risks of SSR and identify mitigation measures if any such risk exists. PG&E will provide input on the SSR study plan and provide the applicable generation data required to support the SSR study.
- Out of Step Blocking (out of step simulations) – necessary for line protection settings
- Max line Loading expectations (including overload scenarios) – necessary for settings

INTERCONNECTION PROVIDER FACILITIES

1. Gates 500kV breakers at Bay 2 Position

- Install one new 500kV Circuit breaker in Bay 2 position, CB 522 capable of single-pole tripping.
- Existing CB 622 & CB 722 are not to be converted for single pole trip capability.
- Utilize each of the two trip coils for protective relaying.
- Wire CB Local annunciators to control room SCADA and/or Station Annunciator
- 500kV CB 522 shall be furnished with three sets of CT's on each bushing - wire all CT circuits to termination panel (Short unused CT's at termination panel).
 - From breaker to control room - ensure conduit routing separation for Standard Protection and RAS scheme (if any RAS scheme is deemed necessary by transmission planning) redundant designs.
- Wire all breaker pallet contacts ("a" and "b" seals) independently to the termination panel (2 wires per seal) termination.
 - From breaker to control room - ensure conduit routing separation for Protection and RAS scheme redundant designs.
- Install manual trip/close switches for each 500kV breaker on control board in 500kV building. All switches to be SCADA ready.
- For Line Position, equip each Line with a SCADA controllable Lead/Follow switch (to be located on breaker panel). Wire Switch to each Line Protection relay, and BF/Recloser relay.

- Equip each breaker with a Breaker Maintenance switch (to be located on breaker panel). Wire Switch to each Line Protection relay, BF/Recloser Relay, RAS, and Metcalf SPS.
- Equip each breaker with an Auto/Manual switch (to be located on breaker panel).
- Install one breaker failure/reclosing relay for Gates CB 522 . *Design BF relay sensing for single pole trip application.*

500kV Breaker Failure Model		
Dev. 511BF-522	Breaker Failure / Reclosing Relay	SEL 451 - 04515415XC2X4H77444XX Firmware: R316-V2

2. Gates 500kV breaker at Bay 1 Position

- Install one new 500kV Circuit breaker in Bay 1 position, CB 712, capable of Single Pole Tripping.
- Do not convert existing CB 612 for single-pole trip capability.
- Utilize each of the two trip coils for protective relaying.
- Wire CB 712 Local annunciator to control room SCADA and/or Station Annunciator
- 500kV CB 712 shall be furnished with three sets of CT's on each bushing - wire all CT circuits to termination panel (Short unused CT's at termination panel).
 - From breaker to control room - ensure conduit routing separation for Standard Protection and RAS scheme (if any RAS scheme is deemed necessary by transmission planning) redundant designs.
- Wire all breaker pallet contacts ("a" and "b" seals) independently to the termination panel (2 wires per seal) termination.
 - From breaker to control room - ensure conduit routing separation for Protection and RAS scheme redundant designs.
- Install manual trip/close switches for each 500kV breaker on control board in 500kV building. All switches to be SCADA ready.

- For Line Position, equip each Line with a SCADA controllable Lead/Follow switch (to be located on breaker panel). Wire Switch to each Line Protection relay, and BF/Recloser relay.
- Equip each breaker with a Breaker Maintenance switch (to be located on breaker panel). Wire Switch to each Line Protection relay, BF/Recloser Relay, RAS, and Metcalf SPS.
- Equip each breaker with an Auto/Manual switch (to be located on breaker panel).
- Install one breaker failure/reclosing relay for each new 500kV breaker. *Design BF relay sensing for single pole trip application.*

500kV Breaker Failure Model		
Dev. 511BF-712	Breaker Failure / Reclosing Relay	SEL 451 - 04515415XC2X4H77444XX Firmware: R316-V2

3. 500kV Line Relay Potentials:

- Install three 500kV CCVTs, (one for each phase - A, B, and C), on the line side of the Gates Substation and on the 500kV bus at the Gates STATCOM station. Connect secondary to provide a 3-phase potential source to Line relays (Make Use of Dual windings for redundancy as shown in **Figure 3**)

4. Current Sources - General (CT's)

- Wire all line protection to the 3000:5 tap.
- CT's must be C1200 accuracy class.

- PG&E purchases 500kV CB's with CT Rating factor of 2 – if deviating from this practice then provide the rating factor of CT's.
- If revenue meter(s) are required, please include metering accuracy CT accordingly. Please consult substation engineering for the metering CT specifications.

5. Line Protection (Gates - Gates STATCOM)- 500kV:

New line relay packages will be required at both ends of each 500kV tie-line as follows.

Please note the final part numbers may change pending on the communication channels as well as Gates STATCOM station DC voltage.

500kV Line Protection relay model USED FOR ESTIMATE ONLY			
Project Station	Dev. 587A-W	Gates - Project Set A Line 1 Relay	L90-U07-HPH-F8L-H67-L67-N67-S6C-U4D-W77. Firmware: 7.27
Project Station	Dev. 587B-W	Gates - Project Set B Line 1 Relay	L90-U07-HPH-F8L-H67-L67-N67-S6C-U4D-W77. Firmware: 7.27
Project Station	Dev. 587C-W	Gates - Project Set C Line 1 Relay	SEL 0411L1X4X5C7CCXH6742424 Firmware: R117 V1
Project Station	Dev. 587D-W	Gates - Project Set D Line 1 Relay	SEL 0411L1X4X5C7CCXH6742424 Firmware: R117 V1

Gates	Dev. 587A- X	Gates - Project Set A Line 1 Relay	L90-U07-HPH-F8L-H67-L67-N67-S6C-U4D-W77. Firmware: 7.27
Gates	Dev. 587B- X	Gates - Project Set B Line 1 Relay	L90-U07-HPH-F8L-H67-L67-N67-S6C-U4D-W77. Firmware: 7.27
Gates	Dev. 587C- X	Gates - Project Set C Line 1 Relay	SEL 0411L1X4X5C7CCXH6742424 Firmware: R117 V1
Gates	Dev. 587D- X	Gates - Project Set D Line 1 Relay	SEL 0411L1X4X5C7CCXH6742424 Firmware: R117 V1
Project Station	Dev. 587A- Y	Gates - Project Set A Line 2 Relay	L90-U07-HPH-F8L-H67-L67-N67-S6C-U4D-W77. Firmware: 7.27
Project Station	Dev. 587B- Y	Gates - Project Set B Line 2 Relay	L90-U07-HPH-F8L-H67-L67-N67-S6C-U4D-W77. Firmware: 7.27
Project Station	Dev. 587C- Y	Gates - Project Set C Line 2 Relay	SEL 0411L1X4X5C7CCXH6742424 Firmware: R117 V1
Project Station	Dev. 587D- Y	Gates - Project Set D Line 2 Relay	SEL 0411L1X4X5C7CCXH6742424

			Firmware: R117 V1
Gates	Dev. 587A-Z	Gates - Project Set A Line 2 Relay	L90-U07-HPH-F8L-H67-L67-N67-S6C-U4D-W77. Firmware: 7.27
Gates	Dev. 587B-Z	Gates - Project Set B Line 2 Relay	L90-U07-HPH-F8L-H67-L67-N67-S6C-U4D-W77. Firmware: 7.27
Gates	Dev. 587C-Z	Gates - Project Set C Line 2 Relay	SEL 0411L1X4X5C7CCXH6742424 Firmware: R117 V1
Gates	Dev. 587D-Z	Gates - Project Set D Line 2 Relay	SEL 0411L1X4X5C7CCXH6742424 Firmware: R117 V1

- As described in the table above - Install four (4) primary relaying sets at both ends of each tie-line - Set A, Set B, Set C, and Set D.
- Design each relaying set to Three Pole Trip each line CB (use both CB trip coils). It has been determined that Single Pole Tripping shall not be implemented due to underground/overhead configuration of both 500kV interconnections between Gates and the Gates STATCOM.
- Wire the power supply for all four sets of line relays to independent station DC breakers.
- Connect each relay to level shift IRIG clock (PMU resolution)
- Arrange the four (4) line protection relays within the relaying cabinets as per

Figure 2:

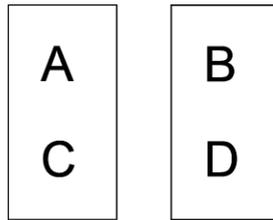


Fig. 2 Relaying Cabinet Arrangement

- Ensure that there is NO common conduit routing from the breaker to the control room for the CT sets associated with each cabinet. (No single-point failure)
- Dual Taps will be needed for BOTH Full Tap and Half Tap potentials. Ensure that there is NO common conduit routing from the breaker to the control room for the CCVT sets associated with each cabinet. (No single-point failure). Schematic diagram of CT and CCVT arrangement is shown in Fig. 3.
 - Wire the Set A and Set C cabinet on the same CCVT Half Tap.
 - Wire the Set B and Set D cabinet on the same CCVT Half Tap (Different tap than Set A and Set C relay).
- Wire the Set A and Set C cabinet on the same CT.
- Wire the Set B and Set D cabinet on the alternate CT.
- Transmission planning has confirmed that Gates STATCOM does not need to be included in any RAS schemes.

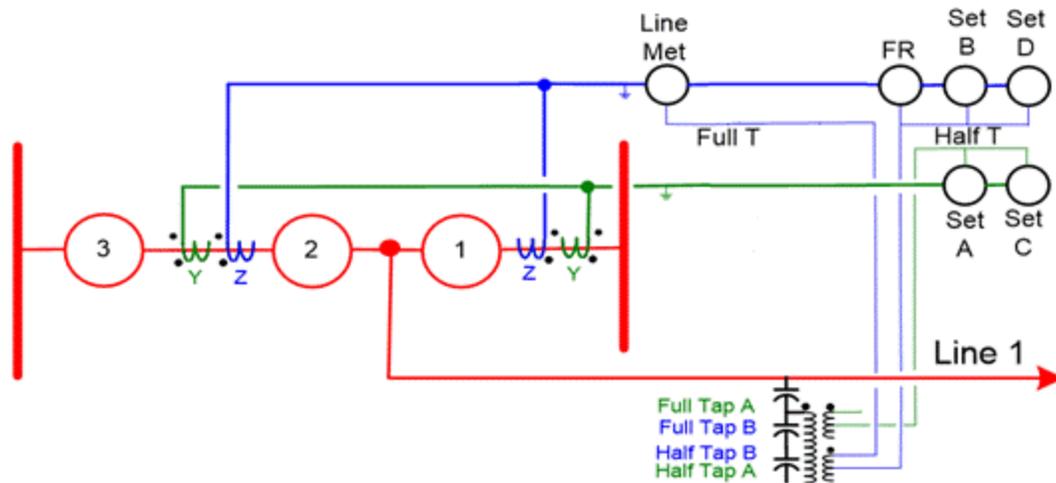


Fig. 3 Schematic of CT and CCVT Arrangement

6. Telecom for Line Relay Communication:

1. Install dual fiber optic cables for line current differential protection and direct transfer trip (DTT). Please make sure to have enough fiber strands within each tie-line.
2. Ensure minimum 10' physical separation for communication paths. No single points of failure, (or Maintenance clearance), should simultaneously affect Route "1" and Route "2" communication.
3. Set A and C line relays connect to one communication channel.
4. Set B and D line relays connect the other communication channel.
5. The type of fiber optic (multi-mode or single mode, etc.) shall be determined by telecom engineering.
6. The type of fiber can affect the line relay (L90 and SEL-411L) part numbers. Therefore, the final part numbers of line protection shall be reviewed and confirmed after selection of fiber optic cables.

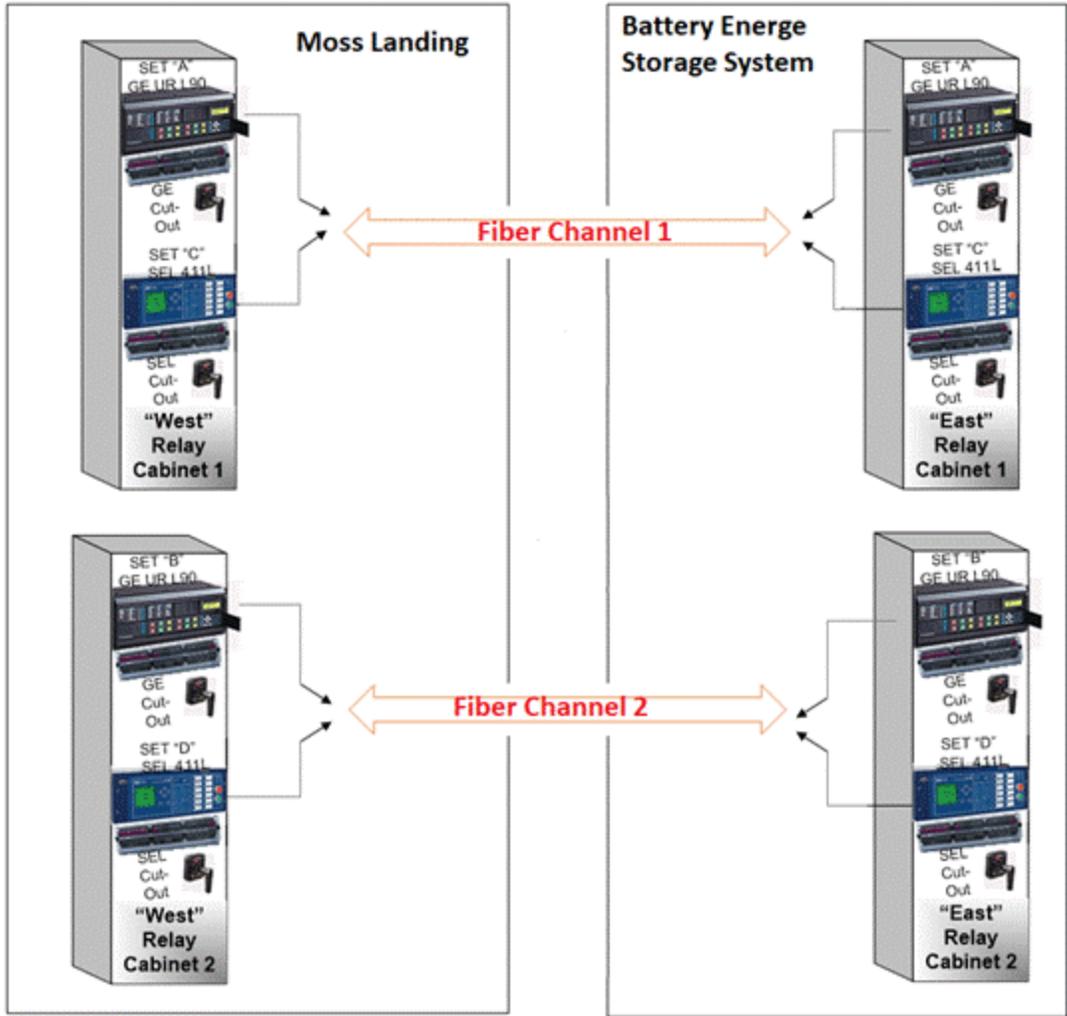


Fig. 4 500kV Line Relay Direct Fiber Communications

7. Gates 500 kV Bus #1 and Bus #2

Existing bus protection consists of two sets of Bus differential for Bus #1 and #2.

- Set A: 587B-1A or 2A (ABB-KAB) High impedance bus differential
- Set B: 587B-1B or 2B (ABB-KAB) High impedance bus differential
- The new breakers for Gates STATCOM interconnection are to be included into the respective bus differential protection.

- CB 522 on Bus #1
- CB 662 on Bus #1
- CB 762 on Bus #2
- Separate CTs and conduits shall be used for each bus differential protection.

8. Gates Phasor Measurement Unit

Replace existing 500kV PMU (ABB RES670) at PG&E Gates Substation with new PMU (SEL RTAC/AXION) to accommodate all existing 500kV elements and new Gates STATCOM Tie lines.

- Wire 500kV Gates STATCOM line Potentials and Currents to PMU.
- Station PMU Concentrator, or Phasor Data Concentrator (PDC) and Storage Device will need to be programmed for the addition.
- Fully redundant System A and System B PMU schemes are required.
 - Consider FERC Order 754 as a guide to avoid single component failures:
 - Fully redundant wiring between System A and System B for instrumentation. Diverse routing of redundant system wiring from control building to the yard primary equipment desired (Instrumentation). This minimizes the exposure to single component failure vulnerabilities. If diverse routing cannot be achieved, then placing redundant instrumentation and control in different conduits achieves the minimum desired diversity.
- Each Substation Bus Section requires a SEL-3555 RTAC as the data concentrator and SEL-2240 Axions (when more than one needed) as the

sensing units. Identical part numbers will be used for both System A and System B. The SEL-3555 has one part number, but the Axion can be custom configured so it has multiple part numbers.

- Stream C37.118 data to the C37.118 stream concentrator (RTAC) located in new 230kV Bus Section E BAAH Control Building.
- Below is a list of the part numbers, firmware, and quantities for System A (order double the units as listed below to include BOTH System A and System B):
 - 3555#HGB2 - 32GB drive with 1310 nm MM SFPs – Qty. 1 - Firmware R144-V5 <- This is the data concentrator that takes the Axion values and puts them out as synchrophasor data.
 - Device PDC-GAT- AC
 - 2242R1X0 – Qty. 2 – no associated firmware <- This is the physical chassis for the Axion hardware.
 - Device PMU-500-A1
 - Device PMU-500-A2
 - 224311X0 – Qty. 2 – no associated firmware <- This is the power coupler module for the Axion chassis.
 - **Device PMU-500-A1: Place in Module Position A.**
 - **Device PMU-500-A2: Place in Module Position A.**

- 2245420XXX0 – Qty. 14 – Firmware R102-v1 <- These are the analog sensing units; each unit accommodates 3 currents and three voltages.
 - **Device PMU-500-A1: Place 7 sensing units in Module Positions D, E, F, G, H, I, &J**
 - **Device PMU-500-A2: Place 7 sensing units in Module Positions D, E, F, G, H, I, &J**

- 22442424X0 – Qty. 2 – no associated firmware <- This is a digital input card.
 - **Device PMU-500-A1: Place in Module Position C**
 - **Device PMU-500-A2: Place in Module Position C**

- 22443132X0 – Qty. 2 – no associated firmware <- This is a digital output card
 - **Device PMU-500-A1: Place in Module Position B**
 - **Device PMU-500-A2: Place in Module Position B**

- PMU to monitor the following:
 - **Device PMU-500-A1**
 - Use D module for 500kV Bus 1 voltage (single-phase)
 - Use E module for 500kV Bus 2 voltage (single-phase)
 - Use F module for Bank #11 high-side current and 3 phase voltage.

- Use G module for Gates-Gates STATCOM Line #1 current and 3 phase voltage.
- Use H module for Gates Bank #12 high-side current and 3 phase voltage.
- Use I module for Gates-Midway 500kV Line #1 current and 3 phase voltage.
- Use J Module for Los Banos-Gates 500kV Line #1 current and 3 phase voltage.
- **Device PMU-500-A2**
 - Use D module for Diablo Canyon-Gates 500kV Line #1 voltage
 - Use E module for Los Banos-Gates 500kV Line #3 voltage
 - Use F module for Gates-Gates STATCOM Line #2 current and 3 phase voltage.
 - Reserve G module for future use.
 - Reserve H module for future use.
 - Reserve I module for future use.
 - Reserve J module for future use.
- Use Moss Landing go-by prints as listed below for general guidance:
 - SLM&R print 4131036

- Use full tap potential to PMU voltage inputs.
- Place PMU upstream from protective relays as shown on Moss Landing go-by prints.
- Panel Arrangement print 4131050
 - ML required 1 rack in each building. For this installation, put PMU System A and System B equipment in separate racks. Place SCADA equipment in separate location as needed. See the attached pdf file pages 3 & 4 for the layout of the PMU racks.
 - AC schematics prints 4131066 and 4131067 modified for this configuration.
 - DC schematic print 4140750
 - **Device PMU-500-A1**
 - Use B module for digital outputs, C module for digital inputs.
 - IN 1 –CB 512 Trip (System A only)
 - IN 2 –CB 512 52b
 - IN 3 – Wire CB 612 Trip (System A only)
 - IN 4 – Wire CB 612 52b
 - IN 5 – Wire CB 712 Trip (System A only)
 - IN 6 – Wire CB 712 52b
 - IN 7 – CB 522 Trip (System A only)

- IN 8 – CB 522 52b
- IN 9 – Wire CB 622 Trip (System A only)
- IN 10 – Wire CB 622 52b
- IN 11 – Wire CB 722 Trip (System A only)
- IN 12 – Wire CB 722 52b
- IN 13 – Wire CB 542 Trip (System A only)
- IN 14 – Wire CB 542 52b
- IN 15 – Wire CB 642 Trip (System A only)
- IN 16 – Wire CB 642 52b
- IN 17 – Wire CB 742 Trip (System A only)
- IN 18 – Wire CB 742 52b
- IN 19 – CB 552 Trip (System A only)
- IN 20 – CB 552 52b
- IN 21 – CB 652 Trip (System A only)
- IN 22 – CB 652 52b
- IN 23 – CB 752 Trip (System A only)
- IN 24 – CB 752 52b
- **Device PMU-500-A2**
 - Use B module for digital outputs, C module for digital inputs.

- IN 1 – (Reserved) CB 562 Trip (System A only)
 - IN 2 – (Reserved) CB 562 52b
 - IN 3 – (Reserved) CB 662 Trip (System A only)
 - IN 4 – (Reserved) CB 662 52b
 - IN 5 – (Reserved) CB 762 Trip (System A only)
 - IN 6 – (Reserved) CB 762 52b
 - IN 7 – (Reserved) CB 532 Trip (System A only)
 - IN 8 – (Reserved) CB 532 52b
 - IN 9 – (Reserved) CB 632 Trip (System A only)
 - IN 10 – (Reserved) CB 632 52b
 - IN 11 – (Reserved) CB 732 Trip (System A only)
 - IN 12 – (Reserved) CB 732 52b
- Clock schematic print 4131164
 - Connect to SEL-2488 clock output configured as required for PMUs.
 - Connect to ODN as required for remote communications.
 - The overall system connections are shown in page 1 of the attached “SEL RTAC 2020-06-03.pdf” file.

9. Gates 500kV Fault Recorder

- Wire 500kV Gates STATCOM Line #1 3-phase potentials and 3-phase CT circuits to Fault recorder (See **Figure 3**)

- Wire 500kV Gates STATCOM Line #2 3-phase potentials and 3-phase CT circuits to Fault recorder (See **Figure 3**)
- Wire Breaker Status to 500kV Fault recorder.
- Trigger 500kV Fault recorder with line Protection trip events.

10. Gates Relay Communication and IRIG Clock

- Connect Relays to ODN Network for remote relay communication purposes. Install Routers and Ethernet Switches to be used EXCLUSIVELY by the Line Protection, and Breaker Failure/Reclosing. The Network Switches / Routers require redundancy (Critical 61850 messages will be passed over the Network)

Gates 500kV BAAH project is installing CISCO Switch (CGS-2520-16S-8PC).
- GPS clock is required for high output option dedicated for Line Set A, Set B, Set C, and Set D relays, and BF/reclosing relays. Gates 500kV BAAH project is installing SEL-2488 Satellite Synchronized Network Clock. Please verify if we can connect new interconnection associated relays to the existing clock. If not, please install new GPS clock.

11. Gates 500kV RAS

Transmission Planning has confirmed it is not necessary to implement remedial action schemes (RAS), such as PaciRAS for the Gates STATCOM interconnection.

If deemed necessary later, it is required to install N60 relays at Gates. For PaciRAS, it is also required to modify the interface with PACIRAS controllers at Vacaville Grid Control Center and San Francisco Control Center.

12. 500kV Protection Coordination Study

- Review Gates 230kV/500kV relay settings and change if necessary based on increased fault duties (Coordination Study).

- Review third party relay package proposal and setting coordination review.

13. Automation Requirements

- To be provided by the Automation Group

14. Protection Engineer Time

- Include the following Protection time Estimate for the 500kV work Conventional Protection:
 - Project – **400 hours**
 - Gates – **400 hours**
 - Coordination Study: **320 hours**
- **Contractual Work Requirements**
 - RTDS Model Development (Contractor): **\$20,000**
 - RTDS Testing (at contractor facility) and Travel Cost: **\$60,000** (\$10,000/week – 6 lines)

Note: The two STATCOM 500kV tie-lines are treated as separate lines. Detailed line parameters, when provided, may result in identical parameters for the tie-lines, allowing for a single session of RTDS testing for both tie-lines.

CUSTOMER FACILITIES

1. STATCOM Site Bus and Bus Protection

For Gates STATCOM, there will be two (2) line circuit breakers (CBs), one CB for each line, connected to a single bus. LS Power shall facilitate dual bus differential protection with no single-point failure.

2. STATCOM Site Breaker and Step-Up Transformer

There will be one 500kV breaker on the high-side of each step-up transformer (excluding the spare bank).

- Each breaker shall have the interruption capability of the max fault current.
- Each breaker shall have three sets of CTs on each side of the bushing. CTs for protection purpose shall be rated the same as Gates 500kV breakers.
- The breaker should have dual trip coils.
- Connect breaker CTs on the bus side to line protection and connect breaker CTs on the line side for step-up transformer protection so that overlapping is achieved.
- Set A and C line protection CT and CCVT connection.
- CT and CCVT secondary cables, tripping circuits, etc. for Set A/C and B/D should route on different paths with physical separation.
- Set A, B, C and D line relays should be powered by different DC breakers.
- Install a breaker failure relay for each Gates STATCOM 500kV breaker. When the BF relay operates, Direct Transfer Trip (DTT) shall be sent to Gates to trip the associated breakers.
- Each breaker shall be provided with a SEL-2411 for breaker monitoring and primary breaker failure initiate via LS Power IEC 61850 scheme.

- Each breaker shall be designed for three pole tripping.

3. STATCOM Site Step-Up Transformer Protection

- Please note that it is the sole responsibility of the developer to clear any faults in the step-up transformer and power electronic devices through their own protective devices, circuit breakers, etc. PG&E assumes no responsibility of any damages to the Gates STATCOM equipment as a result of faults, over-voltage, overload, and other abnormal operating conditions.
- LS Power shall install PG&E-approved relaying referenced in the Transmission Interconnection Handbook for Gates STATCOM protective elements where applicable (e.g. Transformer Bank high-side overcurrent protection) that must coordinate with remote PG&E protection looking into the Gates STATCOM facility.

It is the responsibility of LS Power to facilitate line and transformer protection at Gates STATCOM station. However, PG&E will create design and settings for line protection relays. LS Power will be responsible for implementation of line relay settings at the STATCOM terminals with PG&E-specified set points. PG&E will coordinate implementation of line & transformer relay settings as necessary at the Gates Substation Terminals.

4. STATCOM Site Digital Fault Recorder

- LS Power shall install digital fault recorders at each STATCOM block in the Gates STATCOM substation.

Document Revision History

Previous Document Version	Revision Date	Description of Changes	Change Author	New Version Number
N/A	2020-06-08	Document Creation	500kV team	Rev 0
Rev 0	2020-07-27	Replaced proposed Single Line as per updated Facility Study	500kV team	Rev 1

Previous Document Version	Revision Date	Description of Changes	Change Author	New Version Number
Rev 1	2020-10-20	<p>Revised requirements based on feedback from LS Power:</p> <ul style="list-style-type: none"> - Corrected typos - In lieu of providing complete Bank Test Report, LS Power to provide excerpts of the report detailing data to develop an accurate PG&E ASPEN model such as bank connections, no-load taps, impedances, load loss, etc. - Clarification on PMU requirements: to be applied at PG&E's Gates Substation only. - Removed prescriptive requirements for Gates STATCOM Transformer Bank protection and replaced with minimum requirements to ensure coordination of PG&E protection with Gates STATCOM Transformer protection. 	500kV Team	Rev 2

Previous Document Version	Revision Date	Description of Changes	Change Author	New Version Number
Rev 2	2020-11-23	<p>Revised requirements based on comments to this document by LS Power rebuttal comments by PG&E:</p> <ul style="list-style-type: none"> - Section 1: LS Power changed Gates STATCOM Transformer Bank winding ratings from 500/44.2kV to 500/97.9kV - Section 4: PG&E to perform EMT studies to determine SSCI impacts to the transmission system by Gates STATCOM. - LS Power re-formatted document to create more separation in requirements for PG&E Gates Substation and LS Power Gates STATCOM under the header Customer Facilities. - PG&E clarified settings for 500kV interconnection: Settings are to be developed by PG&E for both terminals of each interconnection with LS Power to implement settings on relays at the Gates STATCOM terminals. 	500kV Team	Rev 3

Previous Document Version	Revision Date	Description of Changes	Change Author	New Version Number
Rev 3	2020-12-07	<p>Revised requirements based on comments by LS Power and discussion with PG&E during 12/3/2020 joint meeting:</p> <ul style="list-style-type: none"> - Section 1: LS Power changed Gates STATCOM Transformer Bank winding ratings from 500/97.9kV to 500/97.5kV to correct typo. - Section 5: LS Power added text regarding order of single-pole trip capable 500kV circuit breakers at Gates STATCOM facility with design of single-pole tripping contingent on results of system studies. - Relocated text covering LS Power responsibility for clearing faults on step-up transformers and downstream devices from Client Facility Section 2 to Client Facility Section 3. 	Rafael Pineda	4
Rev 4	2020-12-08	Revised requirements to capture minor comments by LS Power dated 12/08/2020.	Rafael Pineda	5

Previous Document Version	Revision Date	Description of Changes	Change Author	New Version Number
Rev 5	2021-01-27	Revised requirements to update Bus Fault Duties based on latest LS Power Single Line data for STATCOM 500/97.5kV Transformer Banks. Detailed additional in-service assets (new Gates Bank #11 & 230kV Aquamarine Solar) as part of Case 1 Bus Faults.	Rafael Pineda	6
Rev 6	2021-02-08	Changed title of document from Preliminary Protection Requirements to Final Protection Requirements.	Rafael Pineda	7
Rev 7	2021-03-09	Revised requirements to account for changes in outdoor BAAH arrangement for this project. This change contingent on re-location of Gates Bank #12 500kV termination from North to South side of Bay 2. Pasted revised proposed Single Line diagram provided by Greg Seidel.	Rafael Pineda	8
Rev 8	2021-06-07	Updated proposed Gates BAAH Single Line diagram as per Figure 3.1 of Facilities Study, Rev 4. Updated PMU requirements to align with revised PMU Device Designations detailed in “SEL RTAC 2021-05-11.pdf” and proposed Single Line diagram.	Rafael Pineda	9

Previous Document Version	Revision Date	Description of Changes	Change Author	New Version Number
Rev 9	2022-08-09	<p>Updated line protection to be designed for Three Pole tripping due to underground/overhead construction of the two 500kV Gates-Gates STATCOM interconnections.</p> <p>Breaker failure relays are to be wired for single-pole sensing to facilitate trip coil monitoring and pole discordance features.</p>	Rafael Pineda	10

Appendix B

Milestones

B.1 Interconnection Milestones and Dates

Table B.1: Estimated Interconnection Milestones⁹

Item	Milestone	Responsible Party	Due Date
(a)	Begin engineering and procurement of the Interconnection Facilities and Network Upgrades	Transmission Owner	Upon the Effective Date ¹⁰
(b)	Initial information submission, including Transmission Owner's Transmission System information necessary to allow the Interconnection Customer to select equipment, in accordance with Article 24.2 of the IA	Transmission Owner	August 15, 2022

⁹ Interconnection Customer understands and acknowledges that such timeline is only an estimate and that equipment and material lead times, labor availability, outage coordination, regulatory approvals, right-of-way negotiations, or other unforeseen events could delay the actual in-service dates of the Participating TO's Interconnection Facilities or Network Upgrades related to the Project. The Participating TO shall not be liable for any cost or damage incurred by the Interconnection Customer because of any delay in the schedule for work provided for in this IA.

¹⁰ Transmission Owner has initiated engineering and procurement of the Interconnection Facilities and Network Upgrades in good faith prior to the Effective Date and will continue upon the Effective Date.

Item	Milestone	Responsible Party	Due Date
(c)	Submit initial specifications for major equipment and/or materials for Project, including system protection facilities per Article 5.4.1 of the APSA	Interconnection Customer	At least thirty (30) Calendar Days prior to solicitations for major equipment and/or material
(d)	Review and submit any comments on the updated specifications per Article 5.4.1 of the APSA	Transmission Owner	Within 30 Calendar Days of submissions pursuant to milestone (c)
(e)	Submittal of written authorization to proceed with construction of Transmission Owner’s Interconnection Facilities and Network Upgrades to Transmission Owner pursuant to Article 5.6.3 of the IA (“Notice to Proceed”)	Interconnection Customer	April 1, 2023
(f)	Submit to Interconnection Customer and CAISO the construction schedule for the Interconnection Facilities and Network Upgrades per Article 5.5.2 of the APSA and Article 5.6.4 of the IA	Transmission Owner	Within 10 Calendar Days after Notice to Proceed, and at least 30 Calendar days before commencement of construction.

Item	Milestone	Responsible Party	Due Date
(g)	Submittal of approval from the appropriate Governmental Authority, if applicable, for Transmission Owner's Interconnection Facilities requiring regulatory approval, to Transmission Owner, pursuant to Article 5.6.1 of the IA.	Interconnection Customer	At least 30 Calendar Days prior to the commencement of the construction of the Transmission Owner's Interconnection Facilities
(h)	Begin Construction of the Interconnection Facilities and Network Upgrades	Transmission Owner	Within 60 Calendar Days after Notice to Proceed
(i)	Submittal of initial major specifications for the Interconnection Customer's Interconnection Facilities to the Transmission Owner as specified in Article 5.10.1 of the IA	Interconnection Customer	180 Calendar Days prior to Backfeed Date
(j)	Review of and comment on initial specifications of Interconnection Customer's Interconnection Facilities as specified in per Article 5.10.1 of the IA	Transmission Owner	Within 30 Calendar Days of submissions pursuant to milestone (i)

Item	Milestone	Responsible Party	Due Date
(k)	Submit any updated specifications for major equipment and/or materials for Project, including system protection facilities per Article 5.4.2 of the APSA	Interconnection Customer	180 Calendar Days prior to Backfeed Date
(l)	Review and submit any comments on the updated specifications per Article 5.4.2 of the APSA	Transmission Owner	Within 30 Calendar Days of submissions pursuant to milestone (k)
(m)	Updated Project design information submission by Interconnection Customer, including manufacturer information in accordance with Article 24.3 of the IA	Interconnection Customer	November 1, 2022
(n)	Submit final specifications for major equipment and/or materials for Project including system protection facilities per Article 5.4.2 of the APSA	Interconnection Customer	90 Calendar Days prior to Backfeed Date
(o)	Review and submit any comments on the final specifications per Article 5.4.2 of the APSA	Transmission Owner	Within 30 Calendar Days of submissions pursuant of milestone (n)

Item	Milestone	Responsible Party	Due Date
(p)	Submittal of final specifications for the Interconnection Customer's Interconnection Facilities, including System Protection Facilities, to the Transmission Owner as specified in Article 5.10.1 of the IA	Interconnection Customer	90 Calendar Days prior to the Backfeed Date
(q)	Review of and comment on Interconnection Customer's final specifications as specified in Article 5.10.1 of the IA	Transmission Owner	Within 30 Calendar Days of submissions pursuant to milestone (p)
(r)	Performance of a complete calibration test and functional trip test of the System Protection Facilities pursuant to Article	Interconnection Customer and Transmission Owner	15 Calendar Days prior to the Backfeed Date, or fewer if agreed to by both Transmission
(s)	Notify CAISO in advance of commencement of testing per Article 6.2 of the APSA	Interconnection Customer and Transmission Owner	14 Calendar Days prior to Backfeed Date
(t)	Provide written approval to the Interconnection Customer and CAISO for initial energization of the Project per Article 9.3 of the APSA in a form similar to Appendix E.	Transmission Owner	Prior to Backfeed Date

Item	Milestone	Responsible Party	Due Date
(u)	Completion of Transmission Owner's Interconnection Facilities and Network Upgrades	Transmission Owner	Prior to Backfeed Date
(v)	Backfeed Date	Interconnection Customer	Within 11 months after Notice to Proceed
(w)	Begin initial energization and testing of the Transmission Owner's Interconnection Facilities and Network Upgrades, and testing of the Project and Interconnection Customer's Interconnection Facilities in accordance with Article 6.1 of the IA and Article 6.1 of the APSA (commencement of "Trial Operation")	Interconnection Customer and Transmission Owner	At least 45 Calendar Days prior to the Commercial Operation Date
(x)	Submit supplemental information in accordance with Article 24.4 of the IA	Transmission Owner and Interconnection Customer	Prior to the Commercial Operation Date
(y)	Provide written approval to Interconnection Customer and CAISO for the operation of the Project per Article 6.1 of the APSA	Transmission Owner	No later than the Commercial Operation Date

Item	Milestone	Responsible Party	Due Date
(z)	Planned Commercial Operation Date	Transmission Owner and Interconnection Customer	Within 60 Calendar Days after Backfeed Date
(aa)	Latest Commercial Operation Date Required by CAISO	Transmission Owner	June 1, 2024
(ab)	Submittal of “as-built” drawings, information and documents for the Interconnection Customer’s Interconnection Facilities, if any, in accordance with Article 5.10.3 of the IA, to the Transmission Owner	Interconnection Customer	Within 120 Calendar Days after the Commercial Operation Date, unless otherwise agreed
(ac)	Submittal of “as-built” drawings, information and documents, including protection settings, for the Project per Article 5.6.2 of the APSA.	Interconnection Customer	Within 120 Calendar Days after the Commercial Operation Date, unless otherwise agreed.

B.2 Transmission Owner’s Estimated Timeline

The estimated timeline for engineering, procurement and construction of the Interconnection Facilities and Network Upgrades is outlined in Table B.2.

Table B.2: Estimated Timeline

Month	Date	Remarks
	Effective Date ¹¹	Transmission Owner begins design
-0	Date of Notice to Proceed	Transmission Owner orders equipment
2	Date of Notice to Proceed plus 60 Calendar Days	Transmission Owner begins construction
11	Date of Notice to Proceed plus 11 months	Backfeed Date

¹¹ Note: Transmission Owner has initiated engineering and procurement of the Interconnection Facilities and Network Upgrades in good faith prior to the Effective Date and will continue upon the Effective Date.

Appendix C

Interconnection Details

C.1 Interconnection Customer's Selected Balancing Authority Area

The Interconnection Customer will be located in the CAISO Balancing Authority Area.

C.2 Conceptual One-Line Diagram

Figure C.1 shows the POI and the POCO in a conceptual one-line diagram. Figure C.2 shows the conceptual facilities arrangement and the POCO locations.

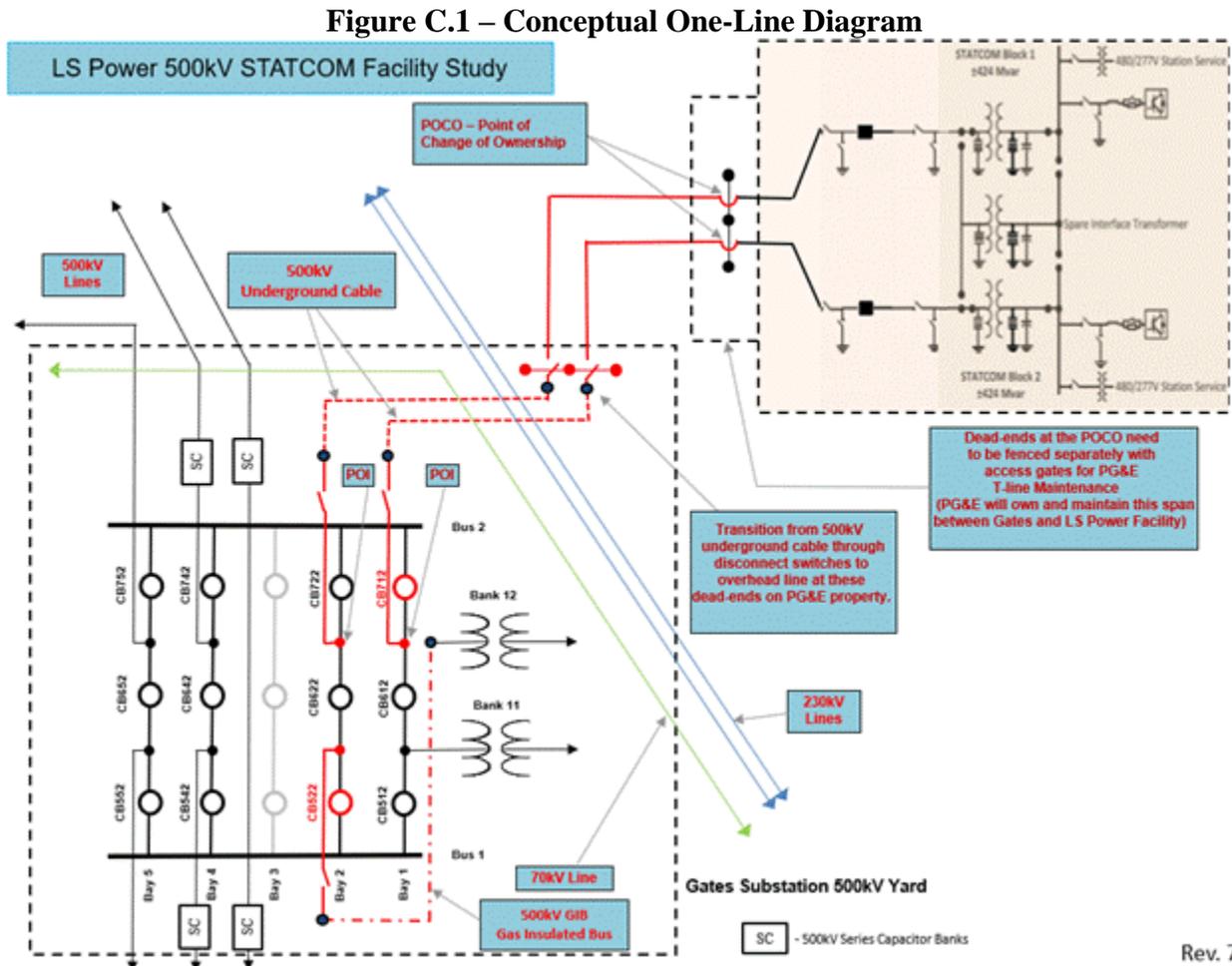


Figure C.2 – Minimum Telemetered Measurements Needed to PG&E Control Centers

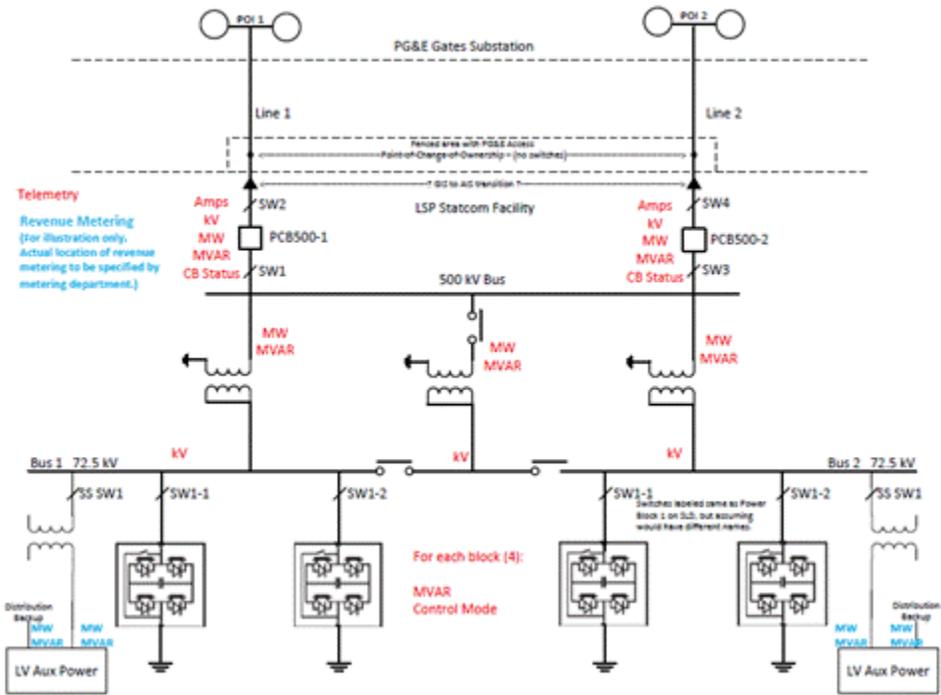
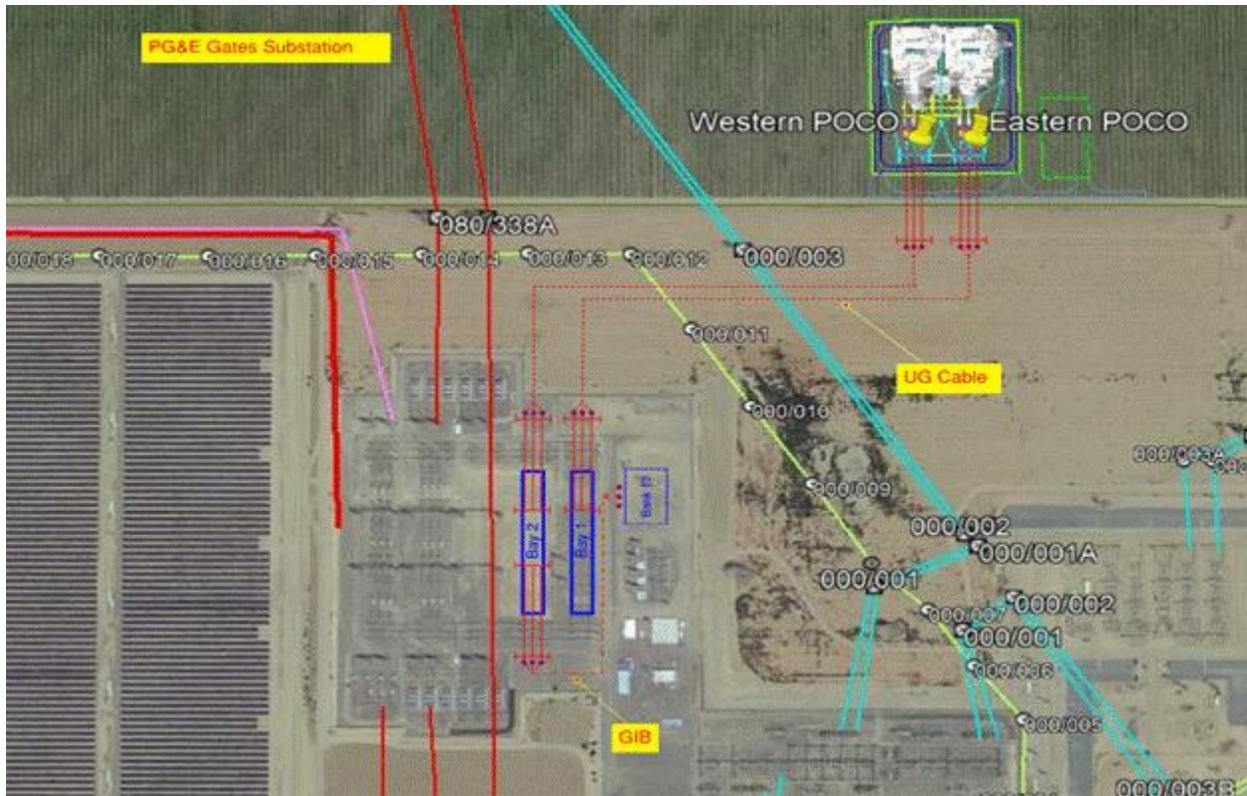


Figure C.3 – Conceptual Facilities Arrangement



Appendix D

Security Arrangements Details

Infrastructure security of CAISO Controlled Grid equipment and operations and control hardware and software is essential to ensure day-to-day CAISO Controlled Grid reliability and operational security. FERC will expect the CAISO, all Participating TOs, market participants, and Interconnection Customers interconnected to the CAISO Controlled Grid to comply with Applicable Reliability Criteria. All public utilities will be expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

Physical Security

Gates Substation will remain fenced, and each gate locked with locks controlled by the Transmission Owner. The Transmission Owner will maintain security cameras and procedures for personnel reporting into the substation. An additional security wall and fence will be added around the outside of the Gates Substation fence.

The IC will maintain a fence with locked gates around the Project substation and will provide Transmission Owner access to the IC's dead-end structures.

OPERATING COMMUNICATIONS AND NOTIFICATIONS

D.1 Designated Representatives

No later than ten (10) Calendar Days prior to the Backfeed Date of the Project, the Transmission Owner and the IC shall provide for operating communications through their respective designated representatives pursuant to operating procedures established between the IC and Transmission Owner.

D.2. Communication with the Transmission Owner's Transmission System Control Center

The IC shall maintain operating communications with the Transmission Owner's Transmission System control centers.

The operating communications shall include, but not be limited to, advising the control center promptly and in advance, if possible, of any paralleling with or separation from the Transmission Owner's Transmission System and any scheduled and unscheduled shutdowns, equipment clearances, and changes in levels of operating voltage or reactive power flow.

IC promptly shall notify the control center of, and any changes in, the following:

- (i) The current names and 24-hour phone numbers of the personnel responsible for operating and maintaining the Project and ICIF.
- (ii) Any Emergency Condition or any request that the Transmission Owner de-energize a portion of Transmission Owner's Transmission System.
- (iii) Any changes in the mechanical or electric condition of the Project or Interconnection Facilities that may affect the reliability of either the Project or the Transmission Owner's Transmission System.
- (iv) Immediately upon discovery, any misoperation or inoperable condition of an interconnection relay or circuit breaker.
- (v) Immediately upon discovery, the operation of any circuit breaker that has operated by an interconnection relay, along with the relay targets that caused the circuit breaker to operate.
- (vi) Plans to manually parallel with or separate from the Transmission Owner's Transmission System and the times of actual manual parallels and separations. Emergency Condition separations shall be reported as soon as possible.

D.3 Oral Communications

All oral operating communications shall be conducted through the control centers. IC agrees to maintain 24-hour staffed direct phone service. All communications will be in English.

D.4 Operating Procedures

The Transmission Owners' Transmission Operating Procedures ("Operating Procedures"), as mutually agreed by the Parties, shall be developed before the Backfeed Date. These Operating Procedures will address switching operations, voltage control, SPS functionality, outage requests, specific operating restrictions and other matters as necessary. Changes to the Operating Procedures shall be as mutually agreed in writing by the Parties, with such agreement not to be unreasonably withheld, conditioned, or delayed. The Operating Procedures will be revised and adapted as needed for the post-COD period, when it will address the day-to-day operations of the Project and Interconnection facilities, including O&M related issues.

Appendix E

Form of Initial Energization Letter

[DATE]

Mr. Mark Milburn

Senior Vice President

LS Power Grid California, LLC

16150 Main Circle Drive, Suite 310

Chesterfield, MO 63017

New Resources Implementation

California Independent System Operator Corporation

250 Outcropping Way

Folsom, CA 95630

Re: Gates 500 kV Dynamic Reactive Support Project

Notice of Written Approval for Initial Energization

Dear Mr. Milburn and CAISO NRI Representative:

This letter is to provide written approval to LS Power Grid California, LLC (LSPGC) and CAISO for initial energization of the Gates 500 kV Dynamic Reactive Support Project, also known as Orchard Substation. Initial energization is scheduled on or around [].

This notification complies with Article 9.3 of the Approved Project Sponsor Agreement (APSA) dated as of May 19, 2020, between LSPGC and CAISO, and in accordance with

Milestone [] of Appendix B to the Interconnection Agreement dated as of [] between LSPGC and PG&E.

Pacific Gas & Electric Company

[Signature]

Name

Title

Appendix F

Form of Commercial Operation Letter

[DATE]

Mr. Mark Milburn

Vice President

LS Power Grid California, LLC

16150 Main Circle Drive, Suite 310

Chesterfield, MO 63017

New Resources Implementation

California Independent System Operator Corporation

250 Outcropping Way

Folsom, CA 95630

Re: Gates 500 kV Dynamic Reactive Support Project

Notice of Written Approval for Commercial Operation

Dear Mr. Milburn and CAISO NRI Representative:

This letter is to provide written approval to LS Power Grid California, LLC (LSPGC) and CAISO for commercial operation of the Gates 500 kV Dynamic Reactive Support Project, also known as Orchard Substation. PG&E has observed Trial Operation of the Project and approves the commencement of CAISO Operational Control.

This notification complies with Article 6.1 of the Approved Project Sponsor Agreement (APSA) dated as of May 19, 2020, between LSPGC and CAISO, and in accordance with

Milestone [] of Appendix B to the Interconnection Agreement dated as of [] between LSPGC and PG&E.

Pacific Gas & Electric Company

[Signature]

Name

Title

Appendix G

Addresses for Delivery of Notices and Billings

Notices:

CAISO:

Regulatory Contracts

250 Outcropping Way

Folsom, CA 95630

Email: RegulatoryContacts@caiso.com

Participating TO:

Pacific Gas and Electric Company

Electric Grid Interconnection – Contract Management

245 Market Street, MC N7L

San Francisco, CA 94105

Email: EGIContractMgmt@pge.com

Interconnection Customer:

LS Power Grid California, LLC

16150 Main Circle Drive, Suite 310

Chesterfield, MO 63017

Email: mmilburn@lspower.com

Billings and Payments:

Participating TO:

Pacific Gas and Electric Company

Electric Grid Interconnection – Contract Management

245 Market Street, MC N7L

San Francisco, CA 94105

Email: EGIContractMgmt@pge.com

CAISO:

CAISO

Finance Dept.

Dennis Estrada

250 Outcropping Way

Folsom, CA 95630

Interconnection Customer:

LS Power Grid California, LLC

16150 Main Circle Drive, Suite 310

Chesterfield, MO 63017

Email: mmilburn@lspower.com

Alternative Forms of Delivery of Notices (telephone, facsimile or email):

CAISO:

Participating TO:

QueueManagement@caiso.com

EGICContractMgmt@pge.com

Regulatorycontracts@caiso.com

Interconnection Customer:

cbrandt@lspower.com

Insurance:

All certificates of insurance coverage, endorsements, cancellations, terminations, alterations, and material changes of such insurance shall be issued in accordance with Article 18.3 of the IA and submitted to the following:

Participating Transmission Owner:

Pacific Gas and Electric Company

Attention: Electric Grid Interconnection – Contract Management

245 Market Street, Code N7L

P.O. Box 770000

San Francisco, CA 94177-0001

Email: EGICContractMgmt@pge.com

CAISO:

Attention: Queue Management

Infrastructure Contracts and Management

250 Outcropping Way

Folsom, CA 95630

Interconnection Customer:

Attention: Asset Manager

LS Power Grid California, LLC

16150 Main Circle Drive, Suite 310

Chesterfield, MO 63017

