

**CALIFORNIA INDEPENDENT SYSTEM  
OPERATOR CORPORATION**

**AND**

**San Francisco Public Utilities  
Commission**

**UTILITY DISTRIBUTION COMPANY  
OPERATING AGREEMENT**

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## UTILITY DISTRIBUTION COMPANY OPERATING AGREEMENT

**THIS OPERATING AGREEMENT** is dated this \_\_\_\_ day of \_\_\_\_\_, 2022, and is entered into, by and between:

- (1) **San Francisco Public Utilities Commission** having its registered and principal place of business located at **525 Golden Gate Avenue, San Francisco, CA, 94102** (the "UDC");  
  
and
- (2) **California Independent System Operator Corporation ("CAISO")**, a California non-profit public benefit corporation having its principal place of business located in such place in the State of California as the CAISO Governing Board may from time to time designate.

The UDC and the CAISO are hereinafter referred to as the "Parties".

### **Whereas:**

- A. The purpose of this Operating Agreement is to establish the rights and obligations of the UDC and the CAISO with respect to the UDC's Interconnection with the CAISO Controlled Grid and the UDC's cooperation and coordination with the CAISO to aid the reliability and the Operational Control of the CAISO Controlled Grid and the UDC's Distribution System.
- B. The UDC owns and operates a Distribution System within the CAISO Balancing Authority Area subject to the authority of a Local Regulatory Authority.
- C. The UDC wishes to transmit Energy and/or supply Ancillary Services to or from the CAISO Controlled Grid under the terms and conditions set forth in the CAISO Tariff. The UDC also wishes to support and be part of the coordinated response to System Emergencies and to System Reliability concerns relating to the CAISO Controlled Grid.
- D. The CAISO has certain statutory obligations under California law to maintain the reliability of the CAISO Controlled Grid.
- E. This Operating Agreement obligates the UDC and the CAISO to comply with the relevant sections of the CAISO Tariff, the CAISO Operating Procedures and the CAISO Specifications.

- F. The UDC and the Participating TO with which it is interconnected intend to coordinate the planning and implementation of any expansions or modifications of the UDC's or Participating TO's systems that will affect their transmission interconnection, the CAISO Controlled Grid or the transmission services to be required by the UDC.

NOW THEREFORE, in consideration of the mutual covenants set forth herein, **THE PARTIES AGREE** as follows:

## ARTICLE I

### DEFINITIONS AND INTERPRETATION

- 1.1 Master Definitions Supplement.** Unless defined in Section 1.2 of this Operating Agreement, all terms and expressions used in this Operating Agreement shall have the same meaning as those contained in the Master Definitions Supplement to the CAISO Tariff.

- 1.2 Special Definitions for this Operating Agreement.** In this Operating Agreement, the following words and expressions shall have the meanings set opposite them:

**“CAISO Specifications”** means those standards pertaining to the areas of operation listed in Article IV of this Operating Agreement, approved by the CAISO to establish detailed technical performance and reliability parameters at the CAISO Controlled Grid and UDC Interconnection, associated with the CAISO Tariff, as those standards may be amended from time to time.

**“CAISO Operating Procedures”** means those procedures pertaining to the areas of operation listed in Article IV of this Operating Agreement, created by the CAISO to establish detailed operating practices at the CAISO Controlled Grid and UDC Interconnection, associated with general provisions required in the CAISO Tariff, as those standards may be amended from time to time.

- 1.3 Rules of Interpretation.** The following rules of interpretation and conventions shall apply to this Operating Agreement:
- (a) if there is any inconsistency between this Operating Agreement and the CAISO Tariff, the CAISO Tariff will prevail to the extent of the inconsistency;
  - (b) the singular shall include the plural and vice versa;

- (c) the masculine shall include the feminine and neutral and vice versa;
- (d) “includes” or “including” shall mean “including without limitation”;
- (e) references to a Section, Article or Schedule shall mean a Section, Article or a Schedule of this Operating Agreement, as the case may be, unless the context otherwise requires;
- (f) a reference in this Operating Agreement to a given agreement, instrument or the CAISO Tariff shall be a reference to that agreement, instrument or the CAISO Tariff as modified, amended, supplemented or restated through the date as of which such reference is made;
- (g) unless the context otherwise requires, references to any law shall be deemed references to such law as it may be amended, replaced or restated from time to time;
- (h) unless the context otherwise requires, any reference to a “person” includes any individual, partnership, firm, company, corporation, joint venture, trust, association, organization or other entity, in each case whether or not having separate legal personality;
- (i) unless the context otherwise requires, any reference to a Party includes a reference to its permitted successors and assigns;
- (j) any reference to a day, week, month or year is to a calendar day, week, month or year; and
- (k) the captions and headings in this Operating Agreement are inserted solely to facilitate reference and shall have no bearing upon the interpretation of any of the terms and conditions of this Operating Agreement.

## ARTICLE II

### TERM AND TERMINATION

- 2.1 Effective Date.** This Operating Agreement shall be effective as of the later of the date it is executed by the Parties or the date accepted for filing and made effective by the FERC, if such FERC filing is required, and shall remain in full force and effect until the earlier of the termination date, the termination of the TCA or such other date as the Parties shall mutually agree. With respect to any such termination, the CAISO must file a timely notice of termination with FERC, if such FERC filing is required, and this

Operating Agreement shall terminate upon acceptance by FERC of such a notice of termination, if such FERC filing is required.

**2.2 Termination Date.** Either Party (the terminating Party) may terminate this Operating Agreement by giving written notice in the event that the other Party (the defaulting Party) commits any default under this Operating Agreement and/or the CAISO Tariff which, if capable of being remedied, is not remedied within 30 days after the terminating Party has given the defaulting Party written notice of the default, unless excused by reason of Uncontrollable Forces under Article X of this Operating Agreement. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Operating Agreement was filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the filing of the notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within sixty (60) days after issuance of the notice of default; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Operating Agreement shall terminate upon acceptance by FERC of such a notice of termination, if filed with FERC, or thirty (30) days after the date of the notice of default, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.

**2.3 Termination Pursuant to the TCA.** If the UDC is a party to the Transmission Control Agreement (“TCA”), this Operating Agreement shall terminate upon the effective date of the UDC’s withdrawal from the TCA in accordance with Section 3.3 of the TCA, provided, however, that first the CAISO shall have filed a timely notice of termination with FERC, if such FERC filing is required, and FERC shall have accepted such notice of termination, if such FERC filing is required, or the CAISO must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the request to file a notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within sixty (60) days of receipt of such request; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001.

## ARTICLE III

### GENERAL TERMS AND CONDITIONS

- 3.1.1 Facilities Under CAISO Operational Control.** Parties shall identify on Schedule 1 those facilities of the UDC that the Parties mutually agree will be placed under the CAISO's Operational Control pursuant to the CAISO Tariff. In the event that a Party invokes the dispute resolution provision identified in Section 7.1 of this Operating Agreement, such dispute shall be resolved based upon whether the CAISO's control over such disputed facilities is essential to meeting the Applicable Reliability Criteria, as defined in the CAISO Tariff. With respect to each facility identified in Schedule 1, the Parties shall negotiate the extent of the CAISO's Operational Control in order to meet said standard.
- 3.1.2 Facilities Financed by Local Furnishing Bonds or Other Tax-Exempt Bonds.** This Section 3.1.2 applies only to facilities which are under the Operational Control of the CAISO and are owned by a UDC with Local Furnishing Bonds or other tax-exempt bonds. Nothing in this Operating Agreement shall compel (and the CAISO is not authorized to request) any UDC with Local Furnishing Bonds, or other tax-exempt bonds, to violate restrictions applicable to facilities which are part of a system that was financed in whole or part with Local Furnishing Bonds or other tax-exempt bonds. The UDC shall cooperate with and provide all necessary assistance to the CAISO in developing specific schedules to be included in executed Operating Agreements with such UDC to meet the intent of Section 3.1.1 of this Operating Agreement.
- 3.2 Agreement Subject to CAISO Tariff.** This Operating Agreement shall be subject to the provisions of the CAISO Tariff which shall be deemed to be incorporated by reference herein, as the same may be changed or superseded from time to time pursuant to Section 15 of the CAISO Tariff. The Parties agree that they will comply with Section 4.4, and any other applicable provisions, of the CAISO Tariff.
- 3.3 Operation of CAISO Controlled Grid.** The CAISO shall operate the CAISO Controlled Grid in accordance with the CAISO Tariff and the Transmission Control Agreement to which it is a party.
- 3.4.1 Compliance with CAISO Specifications and CAISO Operating Procedures.** The UDC will abide by and will perform all of the obligations under the CAISO Specifications and the CAISO Operating Procedures placed on UDCs in respect of all matters set forth therein as the same may be changed or superseded from time to time pursuant to the procedures set forth in Sections 22.11 and 22.4.3 of the CAISO Tariff. In the event of any conflict or dispute over interpretation, the CAISO Tariff

shall, at all times, take precedence over the CAISO Specifications and CAISO Operating Procedures. The CAISO shall not implement any reliability requirements, operating requirements or performance standards that would impose increased costs on the UDC without giving due consideration to whether the benefits of such requirements or standards are sufficient to justify such increased costs. In any proceeding concerning the cost recovery by the UDC of capital and operation and maintenance costs incurred to comply with CAISO Specifications and Operating Procedures, the CAISO shall, at the request of the UDC, provide specific information regarding the nature of, and need for, the CAISO-imposed requirements or standards to enable the UDC to use this information in support of cost recovery through rates and tariffs.

**3.4.2 Review of Specifications and Operating Procedures.** The CAISO shall periodically review with the UDC the CAISO Specifications and Operating Procedures and, through the process specified in the CAISO Tariff, shall modify the specifications and/or Operating Procedures as necessary.

**3.4.3 Periods When Compliance is Required.** While awaiting dispute resolution or regulatory review, the UDC shall not be required to comply with changes to the CAISO Specifications and/or Operating Procedures, except where compliance is necessary in order to prevent or remedy an imminent System Emergency.

**3.5 Scheduling Coordinator Certification.** The UDC shall ensure that any Scheduling Coordinator through which it submits Bids for Energy and Ancillary Services to or from the CAISO Controlled Grid is appropriately certified in accordance with Section 4.5.1 of the CAISO Tariff in accordance with the list of Scheduling Coordinators established by the CAISO on the CAISO Website.

**3.6 Single Point of Contact.** The CAISO and the UDC shall each provide a single point of contact on a 24-hour, 7-day basis for the exchange of operational procedures and information. The Parties agree to exchange operational contact information in a format to be provided by the CAISO and completed as of the effective date of this Operating Agreement. Each Party shall provide the other Party ten (10) calendar days advance notice of updates to its operational contact information as that information is expected to change. In the case of a UDC that is also a Participating TO, there may be only one single point of contact required and, in the reasonable discretion of the CAISO, duplicative reporting requirements and functions may be waived.

**3.7 Delegated Operational Responsibilities.** The UDC undertakes to perform all operational responsibilities delegated to the UDC by the



CAISO in accordance with Section 4.4.1.2 of the CAISO Tariff and described in Schedule 3.

## ARTICLE IV

### OPERATIONAL COORDINATION

The Parties will perform the operational coordination obligations and responsibilities assigned to them under the CAISO Tariff, the CAISO Operating Procedures, and the CAISO Specifications. The obligations and responsibilities include:

#### 4.1 Maintenance Coordination

**4.1.1 Maintenance Coordination for Facilities under CAISO Control.** The UDC shall schedule with the CAISO on an annual basis any maintenance Outages of the equipment included in Schedule 1 pursuant to Schedule 4 in compliance with the CAISO Tariff and shall coordinate its Outage requirements with the Participating TO with which it is interconnected.

**4.1.2 Maintenance Coordination for Other Facilities.** With respect to other facilities which may affect the reliability of the UDC Interconnection, the UDC shall coordinate its Outage requirements with the Participating TO with which it is interconnected.

**4.2 System Emergencies.** The responsibilities of the Parties in relation to System Emergencies are stated in the CAISO Tariff and in Schedule 5. The CAISO shall adopt fair and non-discriminatory procedures among the UDCs to ensure that no UDC bears a disproportionate share of the CAISO's Load Shedding program.

**4.2.1 Underfrequency Load Shedding (UFLS).** The responsibilities of the Parties in relation to UFLS are stated in Section 7.7.8 of the CAISO Tariff, the CAISO Operating Procedures, the CAISO Specifications and in Schedule 6.

**4.2.2 Other Automatic Load Shedding.** The responsibilities of the Parties in relation to automatic Load Shedding as a function of voltage and other parameters are stated in the CAISO Operating Procedures, the CAISO Specifications and in Schedule 7.

**4.2.3 Manual Load Shedding.** The responsibilities of the Parties to direct and to accept direction for manual disconnection of Load, under EEP, Load curtailment programs or other emergency plans, are stated in Section 7,



including Section 7.7.11.3, of the CAISO Tariff, the CAISO Operating Procedures, the CAISO Specifications and in Schedule 8.

- 4.3 Electrical Emergency Plan (EEP).** The responsibilities of the Parties in relation to the EEP are stated in Section 7.7.5.1 of the CAISO Tariff, the CAISO Operating Procedures, the CAISO Specifications and in Schedule 9.
- 4.4 Load Restoration.** The responsibilities of the Parties for restoring Load following a system disturbance are stated in Section 7.7.11.3 of the CAISO Tariff, the CAISO Operating Procedures, the CAISO Specifications and in Schedule 10.
- 4.5 Records, Information and Reports.** The Parties are required to maintain such records, to share information, and to make such reports as are stated in Section 4.4.1, 4.4.3, and 4.4.5 of the CAISO Tariff, the CAISO Operating Procedures, the CAISO Specifications, and in Schedule 11. Additionally, the Parties shall jointly perform a review following a major Outage as provided in Section 7.7.13.1 of the CAISO Tariff.
- 4.6 Interconnection Operation Standards.** The CAISO and UDC shall maintain stable established operating parameters and control power and reactive flow within standards stated in the CAISO Specifications and in Schedule 12.
- 4.7 Critical Protective Systems.** The UDC shall (in accordance with Section 11.2 of this Operating Agreement) notify the CAISO as soon as is reasonably practicable of any condition that it becomes aware of that may compromise the CAISO Controlled Grid Critical Protective Systems in accordance with Section 4.4.2 of the CAISO Tariff and Schedule 13.
- 4.8 UDC Distribution Systems.** The CAISO shall (in accordance with Section 11.2 of this Operating Agreement) notify the UDC as soon as is reasonably practicable of any condition which the CAISO becomes aware that may compromise the operation and reliability of the UDC Distribution System.

## ARTICLE V

### ACCESS TO FACILITIES

- 5.1 Access Rights.** Pursuant to Section 4.4.6 of the CAISO Tariff and Schedule 14 of this Operating Agreement, the CAISO and the UDC shall each have the right to install or to have installed equipment or other facilities, including metering equipment, on the electric utility property of the other necessary for the implementation of this Operating Agreement. The CAISO's installation of equipment on the property of the UDC shall

comply with Local Regulatory Authority regulations, except where compliance with Local Regulatory Authority regulations would cause the CAISO to violate the CAISO Tariff, and with all relevant safety standards. In such case, the UDC and CAISO will work together to resolve the conflict between the Local Regulatory Authority regulations and the CAISO Tariff.

- 5.2 Meter Testing.** The UDC shall, at the request of the CAISO and upon reasonable notice, provide access to its facilities necessary to permit the CAISO or a CAISO-approved meter inspector to perform such testing as necessary in accordance with Section 4.4.6 of the CAISO Tariff and the procedures set forth in Schedule 14.
- 5.3 Emergency Access Rights.** Section 4.4.6.3 of the CAISO Tariff shall govern the CAISO's right to access the UDC's equipment or other facilities during a System Emergency or where access is needed in connection with an audit function. In a System Emergency, the UDC shall have a right of access to CAISO equipment on UDC property and UDC equipment on CAISO property without notice.

## ARTICLE VI

### COSTS

- 6.1 UDC Operating and Maintenance Costs.** The UDC shall be responsible for all costs incurred in connection with procuring, installing, operating and maintaining its facilities identified in Schedule 1 for the purpose of meeting its obligations under this Operating Agreement.
- 6.2 CAISO Operating and Maintenance Costs.** The CAISO shall be responsible for the procurement, installation, operation and maintenance costs of CAISO equipment set out in Article V of this Operating Agreement installed on UDC property.

## ARTICLE VII

### DISPUTE RESOLUTION

- 7.1 Alternative Dispute Resolution.** The Parties shall make reasonable efforts to settle all disputes arising out of or in connection with this Operating Agreement. In the event any dispute is not settled, the Parties shall adhere to the CAISO ADR Procedures set forth in Section 13 of the CAISO Tariff, which is incorporated by reference, except that all reference

in Section 13 of the CAISO Tariff to Market Participants shall be read as a reference to the UDC and references to the CAISO Tariff shall be read as references to this Operating Agreement.

## ARTICLE VIII

### REPRESENTATIONS AND WARRANTIES

- 8.1 Representations and Warranties.** Each Party represents and warrants that its execution, delivery and performance of this Operating Agreement has been duly authorized by all necessary corporate and/or governmental actions, to the extent authorized by law.
- 8.2 Necessary Approvals.** Each Party represents that all necessary approvals, permits, licenses, easements, right of way or access to install, own and operate its facilities subject to this Operating Agreement have been obtained prior to the effective date of this Operating Agreement.

## ARTICLE IX

### LIABILITY

- 9.1 Extent of Liability.** The provisions of Section 14 of the CAISO Tariff will apply to liability arising under this Operating Agreement, except that all references in Section 14 of the CAISO Tariff to Market Participants shall be read as references to the UDC and references to the CAISO Tariff shall be read as references to this Operating Agreement.

## ARTICLE X

### UNCONTROLLABLE FORCES

- 10.1 Uncontrollable Forces Tariff Provisions.** Section 14.1 of the CAISO Tariff shall be incorporated by reference into this Operating Agreement, except that all references in Section 14.1 of the CAISO Tariff to Market Participants shall be read as a reference to the UDC and references to the CAISO Tariff shall be read as references to this Operating Agreement.

## ARTICLE XI

### MISCELLANEOUS

- 11.1 Assignments.** Either Party may assign its obligations under this Operating Agreement, with the other Party's prior written consent, in accordance with Section 22.2 of the CAISO Tariff, which is incorporated by reference into this Operating Agreement. Such consent shall not be unreasonably withheld.
- 11.2 Notices.** Any notice, demand or request which may be given to or made upon either Party regarding this Operating Agreement shall be made in accordance with Section 22.4 of the CAISO Tariff, which is incorporated by reference, except that all reference in Section 22.4 of the CAISO Tariff to Market Participants shall be read as a reference to the UDC and references to the CAISO Tariff shall be read as references to this Operating Agreement, and unless otherwise stated or agreed shall be made to the representative of the other Party indicated in Schedule 2. A Party must update the information relating to its address as that information changes in accordance with Section 22.4 of the CAISO Tariff. Such changes will not constitute an amendment to this Operating Agreement.
- 11.3 Waivers.** Any waiver at any time by either Party of its rights with respect to any default under this Operating Agreement, or with respect to any other matter arising in connection with this Operating Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or matter arising in connection with this Operating Agreement. Any delay short of the statutory period of limitations, in asserting or enforcing any right under this Operating Agreement, shall not constitute or be deemed a waiver of such right.
- 11.4 Governing Law and Forum.** This Operating Agreement shall be deemed to be a contract made under and for all purposes shall be governed by and construed in accordance with the laws of the State of California except in its conflict of laws provisions. The Parties irrevocably consent that any legal action or proceeding arising under or in relation to this Operating Agreement to which the CAISO ADR Procedures do not apply, shall be brought in any of the following forums, as appropriate: any court of the State of California, any federal court of the United States of America located in the State of California or, where subject to its jurisdiction, before the Federal Energy Regulatory Commission.
- 11.5 Consistency with Federal Laws and Regulations.**

- (a) Nothing in this Operating Agreement shall compel any person or federal entity to: (1) violate federal statutes or regulations; or (2) in the case of a federal agency, to exceed its statutory authority, as defined by any applicable federal statutes, regulations, or orders lawfully promulgated thereunder. If any provision of this Operating Agreement is inconsistent with any obligation imposed on any person or federal entity by federal law or regulation to that extent, it shall be inapplicable to that person or federal entity. No person or federal entity shall incur any liability by failing to comply with this Operating Agreement that is inapplicable to it by reason of being inconsistent with any federal statutes, regulations, or orders lawfully promulgated thereunder; provided, however, that such person or federal entity shall use its best efforts to comply with the CAISO Tariff to the extent that applicable federal laws, regulations, and orders lawfully promulgated thereunder permit it to do so.
- (b) If any provision of this Operating Agreement requiring any person or federal entity to give an indemnity or impose a sanction on any person is unenforceable against a federal entity, the CAISO shall submit to the Secretary of Energy or other appropriate Departmental Secretary a report of any circumstances that would, but for this provision, have rendered a federal entity liable to indemnify any person or incur a sanction and may request the Secretary of Energy or other appropriate Departmental Secretary to take such steps as are necessary to give effect to any provisions of this Operating Agreement that are not enforceable against the federal entity.

**11.6 Integration.** This Operating Agreement constitutes the full agreement of the Parties with respect to the subject matter hereof and supersedes all prior agreements, whether written or oral, with respect to such subject matter.

**11.7 Severability.** If any term, covenant, or condition of this Operating Agreement or the application or effect of any such term, covenant, or condition is held invalid as to any person, entity, or circumstance, or is determined to be unjust, unreasonable, unlawful, imprudent, or otherwise not in the public interest by any court or government agency of competent jurisdiction, then such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Operating Agreement and their application shall not be affected thereby, but shall remain in force and effect and the Parties shall be relieved of their obligations only to the extent necessary to eliminate such regulatory or other determination unless a court or governmental agency of competent jurisdiction holds that

such provisions are not separable from all other provisions of this Operating Agreement.

**11.8 Penalties.** Any penalties to be levied under this Operating Agreement shall be established in accordance with the CAISO Tariff after consultation between the UDC and the CAISO, and approval by the FERC, and shall be set out in Schedule 15 or a provision of the CAISO Tariff. No penalties or sanctions may be imposed under this Operating Agreement unless a Schedule or CAISO Tariff provision providing for such penalties or sanctions has first been filed with and made effective by FERC. Nothing in this Operating Agreement, with the exception of the provisions relating to the CAISO ADR Procedures, shall be construed as waiving the rights of the UDC to oppose or protest any penalty proposed by the CAISO to the FERC or the specific imposition by the CAISO of any FERC-approved penalty on the UDC.

**11.9 [NOT USED]**

**11.10 Amendments.** This Operating Agreement and the Schedules attached hereto may be amended from time to time by the mutual agreement of the Parties in writing. Amendments that require FERC approval shall not take effect until FERC has accepted such amendments for filing and made them effective. Nothing contained herein shall be construed as affecting in any way the right of the CAISO to unilaterally make application to FERC for a change in the rates, terms and conditions of this Operating Agreement under Section 205 of the FPA and pursuant to FERC's rules and regulations promulgated thereunder, and the UDC shall have the right to make a unilateral filing with FERC to modify this Operating Agreement pursuant to Section 206 or any other applicable provision of the FPA 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 Operating Agreement shall limit the rights of the Parties or of FERC under Sections 205 or 206 of the FPA and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

**11.11 Counterparts.** This Operating Agreement may be executed in one or more counterparts at different times, each of which shall be regarded as an original and all of which, taken together, shall constitute one and the same Operating Agreement.



**IN WITNESS WHEREOF**, the Parties hereto have caused this Operating Agreement to be duly executed on behalf of each by and through their authorized representatives as of the date hereinabove written.

**California Independent System Operator Corporation**

By: DocuSigned by:  
*Neil Millar*  
9236FA183EA64FB... \_\_\_\_\_

Name: Neil Millar

Title: Vice President Infrastructure and Ops Planning

Date: 1/5/2022

**San Francisco Public Utilities Commission**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



## **SCHEDULE 1**

### **FACILITIES UNDER CAISO CONTROL**

The UDC will supply a list of UDC facilities that are placed under the Operational Control of the CAISO in Schedule 1.

There are no UDC facilities that will be placed under the Operational Control of the CAISO.

**SCHEDULE 2**  
**CONTACTS FOR NOTICES**

**UDC**  
**San Francisco Public Utilities Commission**

Name of Primary Representative: Hieu Doan  
Title: Maintenance Manager  
Company: San Francisco Public Utilities Commission  
Address: 525 Golden Gate Avenue  
City/State/Zip Code: San Francisco CA, 94102  
Email Address: hdoan@sfgwater.org  
Phone: 415-227-8529  
Fax: N/A

Name of Alternative Representative: Tia Hoang  
Title: Electrical Engineer  
Company: San Francisco Public Utilities Commission  
Address: 525 Golden Gate Avenue  
City/State/Zip Code: San Francisco CA, 94102  
Email Address: Thoang@sfgwater.org  
Phone: 415-554-3205  
Fax: N/A



**CAISO**

Name of Primary Representative: Regulatory Contracts  
Title: N/A  
Address: 250 Outcropping Way  
City/State/Zip Code: Folsom, CA 95630  
Email address: RegulatoryContracts@caiso.com  
Phone: (916) 351-4400  
Fax: (916) 608-5063

Name of Alternative Representative: Christopher J. Sibley  
Title: Manager, Regulatory Contracts  
Address: 250 Outcropping Way  
City/State/Zip Code: Folsom, CA 95630  
Email address: csibley@caiso.com  
Phone: (916) 608-7030  
Fax: (916) 608-5063

### **SCHEDULE 3**

#### **DELEGATED OPERATIONAL RESPONSIBILITIES**

Currently the CAISO has not delegated any operational responsibilities to the UDC in accordance with Section 4.4.1 of the CAISO Tariff. If such a delegation occurs, they will be identified in this Schedule 3.

N/A

## **SCHEDULE 4**

### **MAINTENANCE COORDINATION**

By October 1st of each year, the UDC will exchange with the CAISO a provisional planned Outage program for all lines and equipment in Schedule 1. That document will be updated quarterly or as changes occur to the proposed schedule.

The CAISO will approve all Outages on equipment and lines transferred to CAISO Operational Control.

Applications for scheduled work will be submitted to the CAISO by San Francisco Public Utilities Commission's Grid Operations group via means to be agreed to by both Parties. The UDC documents will record the details for all work and become the data base for reporting and recording Outage information.

N/A. Davidson Substation's Project Type is classified as Radial Load.

## SCHEDULE 5

### SYSTEM EMERGENCIES

*This procedure addresses how the SFPUC (Davidson Substation facility) will respond to CAISO's request to take action when there is a System Emergency.*

*The CAISO will notify the SFPUC's operational contact (Utility Services Manager), as identified in Schedule 2, of the emergency, including information regarding the cause, nature, extent, and potential duration of the emergency. Utility Services Manager will add any relevant data and will notify Maintenance Manager to make the appropriate notifications within the SFPUC organization. The Utility Services Manager and Maintenance Manager will then take such actions as are appropriate for the emergency.*

*The SFPUC is required to estimate service restoration and will communicate with customers during service interruptions. The SFPUC is also required to communicate the same information to appropriate local governmental entities.*

*Distribution Control Center logs, Electric Switching Orders and Energy Management System temporal data base will be used in preparation of outage reviews. These documents are defined as the chronological record of the operation of the activities which occur with the portion of the electrical system assigned to that control center. The log shall contain all pertinent information, including orders received and transmitted, relay operations, messages, clearances, accidents, trouble reports, daily switching program, etc.*

*The SFPUC will retain records in accordance with its record retention policy or practice, provided the records associated with this Operating Agreement are retained for a minimum of six years.*

## SCHEDULE 6

### UNDERFREQUENCY LOAD SHEDDING

The objective of the Underfrequency Load Shedding (UFLS) program is to provide security and protection to the interconnected bulk power network by arresting frequency decay during periods of insufficient resources.

This plan establishes Underfrequency Load Shedding objectives consistent with the Load Shedding policies of the Western Electricity Coordinating Council, the North American Electric Reliability Corporation and the UDC. The UDC's Load Shedding program will be in accordance with the WECC Off-nominal Frequency Report requirements.

*This procedure addresses how UDC will respond to CAISO's request to complete Underfrequency Load Shedding instructions associated with the Davidson Substation facility.*

*At the initial energization of the Davidson Substation, UFLS activities will be in coordination with PG&E. If this process changes in the future, SFPUC will update procedures accordingly.*



## **SCHEDULE 7**

### **OTHER AUTOMATIC LOAD SHEDDING**

In addition to underfrequency relay load reduction, any undervoltage relay protection that is utilized in the UDC will be identified in the Attachment to this Schedule 7.

N/A

## SCHEDULE 8

### MANUAL LOAD SHEDDING

[Note: Schedule 8 will detail the criteria governing the implementation of manual Load Shedding and/or interruptible Loads, and will describe the UDC's means of effecting Load Shedding and the estimated associated MW values of various UDC Loads to be shed. For Load curtailment programs Schedule 8 will also contain the UDC's capabilities until October 1 and thereafter annually.]

*This procedure addresses how UDC will respond to CAISO's request to complete Manual Load Shedding instructions associated with the Davidson Substation facility.*

*The CAISO will notify the SFPUC's operational contact (Utility Services Manager), as identified in Schedule 2, of the emergency, including information regarding the cause, nature, extent, and potential duration of the emergency. Utility Services Manager will add any relevant data and will notify Maintenance Manager to make the appropriate notifications within the SFPUC organization. The Utility Services Manager and Maintenance Manager will then take such actions as are appropriate for the emergency.*

*The Davidson Substation has a total of 10 circuits. Depending on the # of MWs to be shed, the SFPUC will reduce load based on non-critical load accordingly.*

*The SFPUC is required to estimate service restoration and will communicate with customers during service interruptions. The SFPUC is also required to communicate the same information to appropriate local governmental entities.*

*When the Manual Load Shedding event is complete, the CAISO will notify the SFPUC's operational contact (Utility Services Manager), as identified in Schedule 2. Utility Services Manager will add any relevant data and will notify Maintenance Manager to make the appropriate notifications within the SFPUC organization. The Utility Services Manager and Maintenance Manager will then take appropriate actions to restore system conditions.*

*Distribution Control Center logs, Electric Switching Orders and Energy Management System temporal data base will be used in preparation of outage reviews. These documents are defined as the chronological record of the operation of the activities which occur with the portion of the electrical system assigned to that control center. The log shall contain all pertinent information, including orders received and transmitted, relay operations, messages, clearances, accidents, trouble reports, daily switching program, etc.*

*The SFPUC will retain records in accordance with its record retention policy or practice, provided the records associated with this Operating Agreement are retained for a minimum of six years.*

**SCHEDULE 8A**  
**ROTATING LOAD CURTAILMENT PROCEDURES**

**N/A**

**SCHEDULE 8B**  
**INTERRUPTIBLE LOAD**

**N/A**

## SCHEDULE 9

### ELECTRICAL EMERGENCY PLAN

The CAISO Specifications will outline the basic criteria for the development, coordination, and implementation of the UDC EEP and the requirements for coordination with the CAISO EEP. Schedule 9 will include the UDC EEP as coordinated with the CAISO EEP.

*The UDC Davidson Substation is classified as a Radial Load. This procedure defines the scope, responsibilities, and expectations of the SFPUC requests by CAISO in response to electrical emergencies as described in CAISO Procedure No. 4420. These emergencies include flex alert, restricted maintenance operations, transmission emergencies and during times when CAISO is in need of issuing any of the emergency levels of emergency alerts.*

#### PROCEDURES

*If CAISO issues a flex alert and restricted maintenance operation, SFPUC will suspend any maintenance work on the electrical grid to preserve system reliability.*

*If CAISO encounters transmission emergencies or is in need of issuing any of the emergency levels of emergency alerts, SFPUC's Utility Services Manager will notify the Maintenance Manager to make the appropriate notifications within the SFPUC organization. The Utility Services Manager and Maintenance Manager will then take such actions as are appropriate for the emergency.*

*The Davidson Substation has a total of 10 circuits. Depending on the # of MWs to be shed, the SFPUC will reduce load based on non-critical load accordingly.*

*The SFPUC is required to estimate service restoration and will communicate with customers during service interruptions. The SFPUC is also required to communicate the same information to appropriate local governmental entities.*

*When the SFPUC receives notification from CAISO of an emergency downgrade, SFPUC's Utility Services Manager will notify the Maintenance Manager to issue communications to the appropriate parties within the SFPUC organization. The Utility Services Manager and Maintenance Manager will then take appropriate actions to restore system conditions.*

*Distribution Control Center logs, Electric Switching Orders and Energy Management System temporal data base will be used in preparation of*

*outage reviews. These documents are defined as the chronological record of the operation of the activities which occur with the portion of the electrical system assigned to that control center. The log shall contain all pertinent information, including orders received and transmitted, relay operations, messages, clearances, accidents, trouble reports, daily switching program, etc.*

*The SFPUC will retain records in accordance with its record retention policy or practice, provided the records associated with this Operating Agreement are retained for a minimum of six years.*



## SCHEDULE 10

### LOAD RESTORATION

The UDC will follow the procedures set forth below in this Schedule 10 in promoting orderly, coordinated restoration of electric systems after a major system disturbance has occurred which resulted in Load Shedding by frequency relays in California.

1. Immediately after Load Shedding by frequency relay has occurred in the UDC, the UDC will remain in contact with its respective Participating Transmission Owner (PTO) Area Control Center (ACC) until normal frequency has been restored throughout the CAISO Balancing Authority Area or the CAISO Shift Supervisor has concluded that such full-time communications can be terminated. Emergency communications over the California ACC Hot-line will be under the direction of the CAISO Shift Supervisor and the senior dispatcher present at the affected PTO ACC(s).
2. Manual Load restoration will not normally be initiated until the California ACC Hot Line is attended. No Load is to be manually restored unless directed by the CAISO after the frequency has recovered and there is indication that the frequency can be maintained. The UDC will await direction from its respective PTO ACC who will be in contact with the CAISO Shift Supervisor. The CAISO Shift Supervisor will determine whether adequate generation resources are available on line to support the Load to be restored.
3. Any UDC automatic Load restoration will be consistent with the WECC Coordinated Off-Nominal Frequency Load Shedding and Restoration Plan.
4. If the CAISO cannot meet the WECC and NERC Balancing Authority Area Disturbance Control Standard or the Control Performance Standard post disturbance, no manual Load restoration will be permitted. If the frequency is such that automatic Load restoration occurs under these conditions, the UDC(s) which has restored Load automatically will manually shed an equivalent amount of Load to offset the Load which was automatically restored.
5. Restoration of ties and off-site power supply to nuclear generating facilities should be given top priority. Manual Load restoration will be deferred during periods of tie restoration. The UDC should be equipped and prepared to drop Load manually when necessary to allow frequency recovery sufficient to re-establish CAISO intra-area ties and Interties between the CAISO Balancing Authority Area and outside systems. Where manual Load Shedding is required,

the CAISO shall make reasonable efforts to allocate the Load Shedding requirement equitably among the UDCs where Load Shedding will be beneficial.

6. The UDC will use its existing plans and priorities to restore Load within the parameters given by the CAISO, giving the appropriate priority to essential services such as military, public safety agencies, water treatment plants, sewage treatment plants, etc.

**SCHEDULE 11**  
**RECORDS, INFORMATION, REPORTS**

The CAISO and UDC will jointly develop any necessary forms and procedures for collection, study and transmittal of system data, information, reports, and forecasts.

## SCHEDULE 12

### INTERCONNECTION OPERATION STANDARDS

The CAISO and UDC shall jointly maintain stable operating parameters and control power and reactive flow in accordance with the CAISO Tariff and the following Interconnection Operation Standards.

#### **UDC Responsibilities**

1.0 The UDC shall operate its facilities at each point of interconnection with the CAISO Controlled Grid in such manner as to avoid any material or adverse impact on the CAISO Controlled Grid. In accordance with this performance goal, the UDC shall:

1.1 Operate its facilities at each point of interconnection with the CAISO Controlled Grid within established operating parameters including normal ratings, emergency ratings, voltage limits, and balance of load between electrical phases.

1.2 Maintain primary and backup protective systems such that faults on UDC facilities will be cleared with minimal impact on the CAISO Controlled Grid.

1.3 Maintain Load power factor at each point of interconnection with the CAISO Controlled Grid as close as possible to unity power factor and pursuant to Section 8.2.3.3 of the CAISO Tariff.

#### **CAISO Responsibilities**

2.0 The CAISO shall operate the CAISO Controlled Grid at each point of interconnection with the UDC in such manner as to avoid any material or adverse impact on the UDC facilities. In accordance with this performance goal, the CAISO shall:

2.1 Participate with the UDC and TO in the development of joint power quality performance standards and jointly maintain compliance with such standards.

2.2 Observe UDC grid voltage limits specified in Attachment 1 including requirements for reduced voltage on CAISO Controlled Grid facilities which apply during heavy fog (or other unusual operating conditions) as needed to minimize the risk of insulator flashover. Not Applicable

2.3 Approve transmission owner maintenance requests in a timely manner, and shall not unreasonably withhold approval of TO requests for authorization to

perform energized insulator washing work or to take planned Outages needed to replace or insul-grease insulators.

2.4 Support UDC investigation of power quality incidents, and provide related data to the UDC in a timely manner.

2.5 Support installation of apparatus on the CAISO Controlled Grid to improve power quality, and take all reasonable measures to investigate and mitigate power quality concerns caused by actions or events in neighboring systems or Balancing Authority Areas.

2.6 Maintain Load power factor at each UDC Interconnection as close as possible to unity power factor and pursuant to Section 8.2.3.3 of the CAISO Tariff.

**SCHEDULE 13****CRITICAL PROTECTION SYSTEMS**

Distribution protective relay schemes affecting the CAISO Controlled Grid are those associated with transformers that would trip transmission breakers and/or busses at UDC Interconnection point when activated. These would include any of the following:

1. High Side Overcurrent Relays
2. Differential Overcurrent Relays
3. Sudden Pressure Relays
4. Low Oil Relays
5. Neutral Ground Overcurrent Relays
6. On fuse protected transformers, it would be the high-side fuses.

## SCHEDULE 14

### RIGHTS OF ACCESS TO FACILITIES

14.1 Equipment Installation. In order to give effect to this Operating Agreement, a Party that requires to use particular equipment (the equipment owner) may require installation of such equipment on property owned by the other Party (the property owner), provided that the equipment is necessary to meet the equipment owner's service obligations and that the equipment shall not have a negative impact on the reliability of the service provided, nor prevent the property owner from performing its own obligations or exercising its rights under this Operating Agreement.

14.1.1 Free Access. The property owner shall grant to the equipment owner free of charge reasonable installation rights and rights of access to accommodate equipment inspection, maintenance, repair, upgrading, or removal for the purposes of this Operating Agreement, subject to the property owner's reasonable safety, operational, and future expansion needs.

14.1.2 Notice. The equipment owner shall provide reasonable notice to the property owner when requesting access for site assessment, equipment installation, or other relevant purposes. Such access shall not be provided unless the parties mutually agree to the date, time, and purpose of each access. Agreement on the terms of the access shall not be unreasonably withheld or delayed.

14.1.3 Removal of Installed Equipment. Following reasonable notice, the equipment owner shall be required, at its own expense, to remove or relocate equipment, at the request of the property owner, provided that the equipment owner shall not be required to do so if it would have a negative impact on the reliability of the service provided, or be prevented from performing its own obligations or exercising its rights under this Operating Agreement.

14.1.4 Costs. The equipment owner shall repair at its own expense any property damage it causes in exercising its rights and shall reimburse the property owner for any other reasonable costs that it may be required to incur to accommodate the equipment owner's exercise of its rights under this Section 14.1.

14.2 Rights to Assets. The Parties shall not interfere with each other's assets, without prior written agreement.

14.3 Inspection of Facilities. In order to meet their respective obligations under this Operating Agreement, each Party may view or inspect facilities owned by the other Party. Provided that reasonable notice is given, a Party shall not



unreasonably deny access to relevant facilities for viewing or inspection by the requesting Party.

14.4 Access During Emergencies. Either Party shall have rights of access, without prior notice, to the other Party's equipment as necessary during times of a System Emergency.

**SCHEDULE 15**  
**PENALTIES AND SANCTIONS**

Intentionally left blank, initially, in accordance with Section 11.8