

**Attachment A – Clean Tariff Sheets**

**Tariff Amendment – Order No. 1920 Compliance Filing**

**California Independent System Operator Corporation**

**December 9, 2025**

## **Section 24**

### **24. Comprehensive Transmission Planning Process**

#### **24.1 Overview**

The CAISO will develop a comprehensive Transmission Plan and approve transmission solutions using the Transmission Planning Process set forth in this Section 24. For purposes of this Section 24, transmission solutions include both entirely new transmission facilities and upgrades or additions to existing transmission facilities that are proposed, considered, and/or specified in the comprehensive Transmission Plan during Phase 2 to meet an identified need determined by the CAISO. The CAISO will consider the use of alternative transmission technologies including dynamic line ratings, advanced power flow control devices, advanced conductors, and transmission switching when evaluating transmission solutions for new regional transmission facilities, upgrades to existing transmission facilities, and Long-Term Regional Transmission Facilities. Alternatives to transmission solutions are referred to as non-transmission solutions. Solutions to meet an identified need can be either transmission solutions or non-transmission solutions. The CAISO will analyze the need for transmission solutions in accordance with the methodologies and criteria set forth in this Section 24, the Transmission Control Agreement, and the applicable Business Practice Manuals. The comprehensive Transmission Plan will identify Merchant Transmission Facilities meeting the requirements for inclusion in the Transmission Plan and transmission solutions needed (1) to maintain System Reliability; (2) to satisfy the requirements of a Location Constrained Resource Interconnection Facility; (3) to maintain the simultaneous feasibility of allocated Long-Term CRRs; (4) as additional components or expansions to LGIP Network Upgrades are identified pursuant to Section 24.4.6.5; (5) to meet state, municipal, county and federal policy requirements and directives, including renewable portfolio standards policies; and (6) to reduce congestion costs, production supply costs, transmission losses, or other electric supply costs resulting from improved access to cost-effective resources.

Beginning in 2027, the CAISO will transition to two complementary transmission planning cycles: (a) a comprehensive transmission plan performed biennially (every two years) with the first biennial comprehensive transmission plan to be issued in 2030; and (b) a Long-Term Regional Transmission Plan performed every four years, with a plan first issued in 2030, and further described in Section 24.11.

Additionally, the CAISO will perform reliability studies in each year a comprehensive Transmission Plan is not issued to ensure continued reliability of the CAISO controlled grid and to comply with Applicable Reliability Criteria, CAISO Planning Standards and state mandated resource adequacy study requirements. This is further described in Section 24.3.3.1. For purposes of this Section 24, when referring to the comprehensive Transmission Planning Process, the term “the year X planning cycle” will refer to the comprehensive Transmission Planning Process initiated during year X-2 to complete a comprehensive Transmission Plan in year X. For purposes of this Section 24, when referring to the Long-Term Regional Transmission Planning process, the term “the year Y planning cycle” will refer to the Long-Term Regional Transmission Planning process initiated during year Y-3 to complete a comprehensive Long-Term Plan in year Y.

#### **24.1.1 Transitional Annual Transmission Plan Unique Procedures**

Prior to the first biennial comprehensive Transmission Plan to be issued in 2030, the CAISO will issue a comprehensive Transmission Plan performed on an annual cycle initiated in 2025 and completed in 2026, a comprehensive Transmission Plan performed on an annual cycle initiated in 2026 and completed in 2027 and a final comprehensive transmission plan performed on an annual cycle initiated in 2027 and completed in 2028. For purposes of this Section 24, when referring to the transitional comprehensive Transmission Planning Processes up to and ending with the 2027-2028, the term “the year X/X+1 planning cycle” will refer to the comprehensive Transmission Planning Process initiated during year X to complete a comprehensive Transmission Plan in year X+1. The CAISO will follow the tariff provisions in this Section 24 to perform or otherwise complete remaining phases of these transmission plans, except to the extent the tariff indicates the comprehensive transmission plan will be performed on a biennial basis. These annual Transmission Plans will be performed in accordance with the schedule set forth in the Business Practice Manual. Pursuant to Section 24.3.3.1, the CAISO will also perform reliability studies in 2029 to ensure continued reliability of the CAISO controlled grid and to comply with Applicable Reliability Criteria, CAISO Planning Standards, and state mandated resource adequacy study requirements.

#### **24.1.2 [Not Used]**

#### **24.1.3 [Not Used]**

#### **24.1.4 [Not Used]**

## **24.2 Nature of the Transmission Planning Process**

Beginning in 2027 with the first plan issued in 2030, the CAISO will develop the biennial, comprehensive Transmission Plan and approve transmission upgrades or additions using a Transmission Planning Process with three (3) phases. In Phase 1, the CAISO will develop and complete the Unified Planning Assumptions and Study Plan. In Phase 2, the CAISO will complete the comprehensive Transmission Plan. In Phase 3, the CAISO will evaluate proposals to construct and own certain transmission upgrades or additions specified in the comprehensive Transmission Plan and any eligible projects approved in the Long-Term Regional Planning process. The 2027-2028 Transmission Plan will be the last plan issued in which the first two (2) phases are completed in an annual, rather than biennial, cycle. The Transmission Planning Process shall, at a minimum:

- (a) Coordinate and consolidate in a single plan the transmission needs of the CAISO Balancing Authority Area for maintaining the reliability of the CAISO Controlled Grid in accordance with Applicable Reliability Criteria and CAISO Planning Standards, in a manner that promotes the economic efficiency of the CAISO Controlled Grid and considers federal and state environmental and other policies affecting the provision of Energy;
- (b) Reflect a planning horizon covering a minimum of ten (10) years that considers previously approved transmission upgrades and additions, Demand Forecasts, Demand-side management, capacity forecasts relating to generation technology type, additions and retirements, and such other factors as the CAISO determines are relevant;
- (c) Seek to avoid unnecessary duplication of facilities and ensure the simultaneous feasibility of the CAISO Transmission Plan and the transmission plans of interconnected Balancing Authority Areas, and coordinate with other Planning Regions and interconnected Balancing Authority Areas in accordance with, but not limited to, the Order 1000 Common Interregional Coordination and Cost Allocation Tariff Language in Section 24.18;
- (d) Identify existing and projected limitations of the CAISO Controlled Grid's physical, economic or operational capability or performance and identify transmission upgrades and additions, including any alternative transmission technologies and non-transmission

- alternatives thereto, deemed needed to address the existing and projected limitations;
- (e) Account for any effects on the CAISO Controlled Grid of the interconnection of Generating Units, including an assessment of the deliverability of such Generating Units in a manner consistent with CAISO interconnection procedures;
  - (f) Provide an opportunity for Interregional Transmission Projects submitted to the CAISO as a Relevant Planning Region to be evaluated as potential solutions to CAISO regional transmission needs; and
  - (g) Evaluate projects of entities that have commenced the process to become Subscriber Participating TOs or have initiated related transmission interconnection studies with one or more existing Participating TOs.

**24.2.1 [Not Used]**

**24.2.2 [Not Used]**

**24.2.3 [Not Used]**

**24.2.4 [Not Used]**

**24.3 Comprehensive Transmission Planning Process Phase 1**

Phase 1 consists of the development of the Unified Planning Assumptions and Study Plan.

**24.3.1 Inputs to the Unified Planning Assumptions and Study Plan**

The CAISO will develop Unified Planning Assumptions and a Study Plan using information and data from the approved Transmission Plans developed in the previous planning cycles. The CAISO will consider the following in the development of the Unified Planning Assumptions and Study Plan:

- (a) WECC base cases, as may be modified for the relevant planning horizon;
- (b) Transmission upgrades and additions approved by the CAISO in past Transmission Planning Process cycles, including upgrades and additions which the CAISO has determined address transmission needs in the comprehensive Transmission Plan developed in the previous planning cycle;
- (c) Long-Term Regional Transmission Facilities approved by the CAISO in past Long-Term Planning cycles;
- (d) Category 2 policy-driven transmission upgrades and additions from a prior planning cycle

as described in Section 24.4.6.6;

- (e) Location Constrained Resource Interconnection Facilities conditionally approved under Section 24.4.6.3;
- (f) Network Upgrades that were not otherwise included in the comprehensive Transmission Plan from the previous biennial cycle, and that meet the qualifying criteria described in Section 24.4.6.5;
- (g) Operational solutions validated by the CAISO in the Local Capacity Technical Study under Section 40.3.1;
- (h) Policy requirements and directives, as appropriate, including programs initiated by state, federal, municipal and county regulatory agencies;
- (i) Energy Resource Areas or similar resource areas identified by Local Regulatory Authorities;
- (j) Demand response programs that are proposed for inclusion in the base case or assumptions for the comprehensive Transmission Plan;
- (k) Alternative transmission technologies in addition to generation and other non-transmission alternatives that are proposed for inclusion in planning studies as alternatives to or that incorporate transmission additions or upgrades;
- (l) Beginning with the 2011/2012 planning cycle, Economic Planning Study requests submitted in comments on the draft Unified Planning Assumptions and Study;
- (m) Planned facilities in interconnected Balancing Authority Areas;
- (n) The most recent Annual Interregional Information provided by other Planning Regions;
- (o) Import Capability expansion requests submitted in comments on the draft Unified Planning Assumptions and Study; and
- (p) Subscriber Participating TO transmission facilities, and any generation facilities receiving Subscriber Rights and requesting to interconnect to the CAISO Controlled Grid over Subscriber Participating TO transmission facilities, that have met the following criteria:
  - 1. The Applicant Participating Transmission Owner Agreement has been executed;
  - 2. The generator interconnection agreement with the Subscriber is executed;

3. The Subscriber Participating TO has provided written notice to the CAISO that Construction Activities regarding the Subscriber Participating TO transmission facilities have begun; and
4. Transmission interconnection studies required by the interconnecting Transmission Owner(s) have begun.

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#### **24.3.2 Content of the Unified Planning Assumptions and Study Plan**

The Unified Planning Assumptions and Study Plan shall, at a minimum, provide:

- (a) The planning data and assumptions to be used in the Transmission Planning Process cycle, including, but not limited to, those related to Demand Forecasts and distribution, potential generation capacity additions and retirements, and transmission system modifications;

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- (i) Identification of state or federal, municipal or county requirements or directives that the CAISO will utilize, pursuant to Section 24.4.6.6, to identify policy-driven transmission solutions;
- (j) The status of transmission capacity reservations for long lead-time resources for policy-driven transmission solutions; and
- (k) To the extent the CAISO utilizes the same Study Plan for a coordinated Long-Term Transmission Planning process cycle, the Study Plan will include information on the factors likely to affect Long-Term Regional Transmission Needs as required by Section 24.11.1.4.

#### **24.3.3 Stakeholder Input – Unified Planning Assumptions/Study Plan**

- (a) Beginning with the 2011/2012 planning cycle and in accordance with the schedule set

forth in the Business Practice Manual, the CAISO will provide a comment period during which Market Participants, electric utility regulatory agencies and all other interested parties may submit the following proposals for consideration in the development of the draft Unified Planning Assumptions and Study Plan:

- (i) Demand response programs for inclusion in the base case or assumptions;
  - (ii) Generation and other non-transmission alternatives, consistent with Section 24.3.2(a) proposed as alternatives to transmission solutions; and
  - (iii) State, municipal, county or federal policy requirements or directives.
- (b) Following review of relevant information, including stakeholder comments submitted pursuant to Section 24.3.3(a), the CAISO will prepare and post on the CAISO Website a draft of the Unified Planning Assumptions and Study Plan. The CAISO will issue a Market Notice announcing the availability of such draft, soliciting comments, and scheduling a public conference(s) as required by Section 24.3.3(c);
- (c) No less than one (1) week subsequent to the posting of the draft Unified Planning Assumptions and Study Plan, the CAISO will conduct a minimum of one (1) public meeting open to Market Participants, electric utility regulatory agencies, and other interested parties to review, discuss, and recommend modifications to the draft Unified Planning Assumptions and Study Plan (Assumptions Meeting). Additional meetings, web conferences, or teleconferences may be scheduled as needed. All stakeholder meetings, web conferences, or teleconferences shall be noticed by Market Notice. The CAISO will publicly post the meeting materials no fewer than five calendar days prior to any additional meetings to allow time for stakeholders to review materials in advance of each meeting;
- (d) Interested parties will be provided a minimum of two (2) weeks following the first public meeting to provide comments on the draft Unified Planning Assumptions and Study Plan. Such comments may include Economic Planning Study requests based on the comprehensive Transmission Plan from the prior cycle and Import Capability expansion study requests. All comments on the draft Unified Planning Assumptions and the Study



Plan will be posted by the CAISO to the CAISO Website. Interested parties may submit comments in advance of the Assumptions Meeting. The CAISO will respond to questions or comments from stakeholders at the meeting or in later written comments;

- (e) Following the public conference(s), and under the schedule set forth in the Business Practice Manual, the CAISO will determine and publish to the CAISO Website the final Unified Planning Assumptions and Study Plan in accordance with the procedures set forth in the Business Practice Manual. The final Unified Planning Assumptions and Study Plan will include an explanation as to the public policy requirements or directives that were selected for consideration in the current planning cycle as well as the suggested public policy requirements and directives that were not selected for consideration and the reasons therefore. The CAISO will post the base cases to be used in the technical studies to its secured website as soon as possible after the final Unified Planning Assumptions and Study Plan have been published;
- (f) A public policy requirement or directive selected for consideration in a transmission planning cycle will be carried over into subsequent transmission planning cycles unless the ISO determines that such public policy requirement or directive has been eliminated, modified, or is otherwise not applicable or relevant for transmission planning purposes in a current transmission planning cycle. The ISO will post on its website an explanation of any decision not to consider a previously identified public policy requirement or directive from consideration in the current transmission planning process cycle.

#### **24.3.3.1 Updating the Unified Planning Assumptions**

The CAISO will review the Unified Planning Assumptions and Study Plan developed for the biennial comprehensive Transmission Plan on an annual basis to determine the need for an update to the Unified Planning Assumptions and Study Plan. In the case that the CAISO determines an update is needed, the CAISO will provide stakeholders an opportunity to comment on and the CAISO will respond to any comments to any updates to the Unified Planning Assumptions and Study Plan pursuant to a schedule outlined in the Business Practice Manual. The CAISO will use the finalized Unified Planning Assumptions and Study Plan, following stakeholder engagement, to perform an interim reliability assessment

consisting of technical assessments to identify whether any reliability needs must be addressed on an expedited basis for compliance with NERC Reliability Standards, Applicable Reliability Criteria, CAISO Planning Standards, other applicable planning standards and other criteria established by the Business Practice Manual. In the off-year in which a comprehensive Transmission Plan is not issued, and if the CAISO identifies transmission upgrades and additions, including any alternative transmission technologies and non-transmission alternatives thereto, deemed needed to address reliability needs prior to the issuance of the next comprehensive Transmission Plan, the CAISO will bring such upgrades and additions to the CAISO Board for approval.

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## **24.4 Transmission Planning Process Phase 2**

### **24.4.1 Conducting Technical Studies**

- (a) In accordance with the Unified Planning Assumptions and Study Plan and with the procedures and deadlines in the Business Practice Manual, the CAISO will perform, or direct the performance by third parties of technical studies and other assessments necessary to develop the comprehensive Transmission Plan, including such technical studies and other assessments as are necessary in order to determine Regional Transmission Facilities or other alternatives identified by the CAISO during the Phase 2 studies in the comprehensive Transmission Plan. According to the schedule set forth in the applicable Business Practice Manual, the CAISO will post the preliminary results of its technical studies and proposed mitigation solutions on the CAISO Website. The CAISO's technical study results and mitigation solutions shall be posted not less than one-hundred and twenty (120) days after the final Unified Planning Assumptions and Study Plan are published along with the results of the technical studies conducted by Participating TOs or other third parties at the direction of the CAISO.
- (b) All technical studies, whether performed by the CAISO, the Participating TOs or other third parties under the direction of the CAISO, must utilize the Unified Planning

Assumptions for the particular technical study to the maximum extent practical, and deviations from the Unified Planning Assumptions for the particular technical study must be documented in results of each technical study. The CAISO will measure the results of the studies against Applicable Reliability Criteria, the CAISO Planning Standards, and other criteria established by the Business Practice Manual. After consideration of the comments received on the preliminary results, the CAISO will complete, or direct the completion of, the technical studies and post the final study results on the CAISO Website.

- (c) The CAISO technical study results will identify needs and proposed solutions to meet Applicable Reliability Criteria, CAISO planning standards, and other applicable planning standards. The CAISO and Participating TOs shall coordinate their respective transmission planning responsibilities required for compliance with the NERC Reliability Standards and for the purposes of developing the comprehensive Transmission Plan according to the requirements and time schedules set forth in the Business Practice Manual.

#### **24.4.2 Proposed Reliability Driven Transmission Solutions**

Pursuant to the schedule described in the Business Practice Manual and based on the technical study results, the CAISO, CEC, CPUC, and other interested parties may propose any transmission solutions, including alternative transmission technologies described in Section 24.1, deemed necessary to ensure System Reliability consistent with Applicable Reliability Criteria and CAISO Planning Standards through the Phase 2 Request Window. Participating TOs will submit such proposed transmission solutions through the Phase 2 Request Window within thirty (30) days after the CAISO posts its preliminary technical study results. The substantive description of reliability driven projects is set forth in Section 24.4.6.2.

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#### **24.4.5 Determination of Needed Transmission Solutions**

To determine which transmission solutions should be included in the comprehensive Transmission Plan, the CAISO will evaluate the conceptual transmission facilities identified by the CAISO during the Phase 2 studies, proposed solutions for reliability-driven needs, LCRIF project proposals, proposals required to maintain the feasibility of long term CRRs, interconnection-related transmission facilities pursuant to Section 24.4.6.5 and the results of Economic Planning Studies or other economic studies the CAISO has performed and will consider potential transmission solutions and non-transmission or generation alternatives proposed by interested parties. In determining which transmission solutions should be included in the comprehensive Transmission Plan the CAISO shall consider the degree to which a Regional Transmission Facility may be substituted for one or more Local Transmission Facilities as a more efficient or cost effective solution to identified needs. The CAISO will consider whether regional facilities that incorporate, or consist solely of, alternative transmission technologies described in Section 24.1, would be more efficient or cost-effective than selecting new facilities or upgrades without them.

#### **24.4.6 Categories of Transmission Solutions**

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##### **24.4.6.4 Solutions to Maintain the Feasibility of Long Term CRRs**

The CAISO is obligated to ensure the continuing feasibility of Long Term CRRs that are allocated by the CAISO over the length of their terms. In furtherance of this requirement the CAISO shall, as part of its biennial Transmission Planning Process cycle, test and evaluate the simultaneous feasibility of allocated Long Term CRRs, including, but not limited to, when acting on the following types of projects: (a) planned or proposed transmission solutions; (b) Generating Unit or transmission retirements; (c) Generating Unit interconnections; and (d) the interconnection of new Load. Pursuant to such evaluations, the CAISO shall identify the need for any transmission solutions required to ensure the continuing feasibility of allocated Long Term CRRs over the length of their terms and shall publish a Congestion Data Summary along with the results of the CAISO technical studies. In assessing the need for transmission solutions to maintain the feasibility of allocated Long Term CRRs, the CAISO, in coordination with the Participating TOs and other Market Participants, shall consider lower cost alternatives to the construction of

transmission solutions, such as acceleration or expansion of existing transmission solutions; Demand-side management; Remedial Action Schemes; constrained-on Generation; interruptible Loads; reactive support; or in cases where the infeasible Long Term CRRs involve a small magnitude of megawatts, ensuring against the risk of any potential revenue shortfall using the CRR Balancing Account and uplift mechanism described in Section 11.2.4. As part of the CAISO's Transmission Planning Process, the Participating TOs and Market Participants shall provide the necessary assistance and information to the CAISO to allow it to assess and identify transmission solutions that may be necessary under Section 24.4.6.4. The CAISO will determine the solution that meets the identified need to maintain the feasibility of long-term CRRs in the more efficient or cost effective manner.

#### **24.4.6.5 Interconnection-Related Transmission Facilities**

Network Upgrades originally identified during the generator interconnection process that are not already included in a signed LGIA may be assessed as Interconnection-Related Transmission Facilities as part of the comprehensive Transmission Plan if these Network Upgrades satisfy the following criteria:

- (a) The Network Upgrades consist of interconnection-related network upgrade(s) with a voltage of 200 kV or above, and have capital costs of \$30 million or greater;
- (b) The CAISO has identified interconnection-related network upgrade(s) in Interconnection Studies in at least two interconnection queue cycles;
- (c) The interconnection request(s) driving the need for the network upgrade(s) in two or more cycles has been withdrawn and no more than five calendar years have passed between the date of an earlier interconnection request withdrawal and the date of a later interconnection request withdrawal;
- (d) The CAISO has not identified an interconnection-related network upgrade to address the relevant interconnection-related transmission need in an executed GIA or GIA that the Interconnection Customer requested be filed unexecuted;
- (e) The Interconnection Request withdrawals associated with the repeatedly identified interconnection-related transmission need occurred no earlier than seven calendar years prior to the commencement date of the regional transmission planning and cost allocation cycle.

The CAISO will post a list of the interconnection-related network upgrade(s) eligible for assessment under this section, in the Transmission Planning Process in accordance with the schedule set forth in the applicable Business Practice Manual. Network Upgrades included in the comprehensive Transmission Plan under this section, may include additional components not included in the interconnection-related network upgrade(s) originally identified during the generator interconnection process if the CAISO determines during the Transmission Planning Process that such components are needed under section 24.1. If, through the Transmission Planning Process, the CAISO identifies any additional components of interconnection-related network upgrade(s) that result in the need for other transmission solutions, the responsibility to build and own such transmission solutions will be determined by this Section 24, according to the category of those other transmission solutions.

#### **24.4.6.6 Policy-Driven Transmission Solutions**

Once the CAISO has identified reliability-driven solutions, LCRIF projects eligible for conditional or final approval, solutions needed to maintain long-term CRR feasibility, qualified Merchant Transmission Facilities, needed LGIP Network Upgrades as described in Section 24.4.6.5, and Subscriber Participating TO transmission facilities as well as generation facilities seeking to interconnect to the CAISO Controlled Grid on Subscriber Participating TO transmission facilities, the CAISO shall evaluate transmission solutions needed to meet state, municipal, county, or federal policy requirements or directives as specified in the Study Plan pursuant to Section 24.3.2(i). Policy-driven transmission solutions will be either Category 1 or Category 2 transmission solutions. Category 1 transmission solutions are those which under the criteria of this section are found to be needed and are recommended for approval as part of the comprehensive Transmission Plan in the current cycle. Category 2 transmission solutions are those that could be needed to achieve state, municipal, county or federal policy requirements or directives but have not been found to be needed in the current planning cycle based on the criteria set forth in this section. The CAISO will determine the need for, and identify such policy-driven transmission solutions that efficiently and effectively meet applicable policies under alternative resource location and integration assumptions and scenarios, while mitigating the risk of stranded investment. The CAISO will create a

baseline scenario reflecting the assumptions about resource locations that are most likely to occur and one or more reasonable stress scenarios that will be compared to the baseline scenario. Any transmission solutions that are in the baseline scenario and at least a significant percentage of the stress scenarios may be Category 1 transmission solutions. Consistent with the state, federal, municipal or county requirements or directives underlying the Category 1 transmission solution, the Transmission Plan will specify where the CAISO will reserve the transmission capacity created by a Category 1 transmission solution for certain long lead-time resources, and the amount of reserved capacity. The Transmission Plan will specify criteria for eligible resources, including at a minimum, but without limitation: location, MW capacity, generating technology, and expected in-service date. Each Transmission Plan may modify these criteria for policy-driven transmission solutions as needed to meet state, federal, municipal or county requirements or directives.

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#### **24.4.7 Description of Transmission Solutions**

The transmission solutions identified in the revised draft and final comprehensive Transmission Plan, or in a supplemental assessment to the final comprehensive Transmission Plan, that are subject to the competitive solicitation process will provide sufficient engineering detail to permit Project Sponsors to submit complete proposals, under section 24.5.1 to build the identified transmission solution. As further described in the Business Practice Manual, such details may include, but are not limited to:

- (a) Minimum Conductor Ampacity;
- (b) Approximate Line impedance required;
- (c) Approximate Series compensation levels;
- (d) Substation bus and breaker configuration;
- (e) Breaker clearing times;
- (f) Transformer characteristics (capacity, impedance, tap range);
- (g) Minimum Shunt capacitor and reactor sizes;
- (h) Minimum FACTS device specifications;

- (i) RAS requirements;
- (j) Planning level cost estimates;
- (k) Projected in-service date;
- (l) Any alternative transmission technologies to be incorporated.

#### **24.4.8 Additional Contents of Comprehensive Transmission Plan**

In addition to the detailed descriptions of specific needed transmission additions and upgrades, the draft and final comprehensive Transmission Plan may include: (1) the results of technical studies performed under the Study Plan; (2) determinations and recommendations regarding the need for identified transmission upgrades and additions and their identification as either Local or Regional Transmission Facilities; (3) assessments of transmission upgrades and additions submitted as alternatives to the potential solutions to transmission needs identified by the CAISO and studied during the Transmission Planning Process cycle; (4) results of Economic Planning Studies (except for the 2010/2011 cycle); (5) an update on the status of transmission upgrades or additions previously approved by the CAISO, including identification of mitigation plans, if necessary, to address any potential delay in the anticipated completion of an approved transmission upgrade or addition; (6) a description of transmission additions and upgrades with an estimated capital investment of \$50 million or more for which additional studies are required before being presented to the CAISO Governing Board for approval following completion of the studies; (7) a description of Category 2 transmission upgrades or additions recommended for consideration in future planning cycles; (8) identification of Interregional Transmission Projects that were submitted in the current planning cycle, could potentially meet regional needs, and will be evaluated in the next planning cycle; (9) determinations and recommendations regarding the need for Interregional Transmission Projects that have been evaluated and found to be more cost effective and efficient solutions to regional transmission needs and that satisfy all requirements relevant to meeting such needs. Beginning with plans issued during 2028, the draft and final comprehensive Transmission Plan will include an explanation as to why dynamic line ratings, advanced power flow control devices, advanced conductors, and/or transmission switching were or were not incorporated into selected Regional Transmission Facilities.

#### **24.4.9 Phase 2 Stakeholder Process: Needs Meetings and Solutions Meeting**



- (a) According to the schedule and procedures set forth in the Business Practice Manual, and no fewer than 25 calendar days after the Assumptions Meeting, the CAISO will schedule a Needs Meeting consisting of one (1) public meeting after the CAISO technical study results have been posted and Participating TOs have submitted (i) the results of technical studies conducted at the direction of the CAISO (if applicable); and (ii) reliability-driven solutions. All stakeholder meetings, web conferences, or teleconferences shall be noticed by Market Notice, and all meeting materials will be posted no fewer than five days in advance of any meeting. Interested parties will be provided a minimum two (2) week period to provide written comments regarding the technical study results and the proposals submitted by the Participating TOs and may submit comments before and after the Needs Meetings. The CAISO will respond to questions or comments from stakeholders.
- (b) The CAISO will schedule at least one (1) other public Needs Meeting before the draft comprehensive Transmission Plan is posted to provide information about any policy-driven transmission solution evaluations or economic planning studies that have been completed since the prior public meeting was held, as well as updated information about any studies or evaluations that are still in progress. Notice of such meeting, web conference or teleconference will be provided to stakeholders via Market Notice.
- (c) In accordance with the schedule and procedures in the Business Practice Manual, but not less than one-hundred and twenty (120) days after the results of the CAISO's technical studies are posted and not less than six (6) weeks after the Request Window closes, the CAISO will post a draft comprehensive Transmission Plan. The CAISO will subsequently conduct a public conference, or Solutions Meeting, regarding the draft comprehensive Transmission Plan and solicit comments, consistent with the timelines and procedures set forth in the Business Practice Manual. Additional meetings, web conferences, or teleconferences may be scheduled as needed. All stakeholder meetings, web conferences, or teleconferences shall be noticed by Market Notice and such notice shall be posted to the CAISO Website. All meeting materials will be posted no fewer than

five days in advance of any meeting. Stakeholders will have the opportunity to submit comments before and after each meeting. After consideration of comments, the CAISO will post the revised draft comprehensive Transmission Plan to the CAISO Website.

#### **24.4.10 Transmission Plan Approval Process**

The revised draft comprehensive Transmission Plan, along with the stakeholder comments, will be presented to the CAISO Governing Board for consideration and approval. Upon approval of the plan, all needed transmission additions and upgrades, and Interregional Transmission Projects, net of all transmission and non-transmission alternatives considered in developing the comprehensive Transmission Plan, will be deemed approved by the CAISO Governing Board. Following Governing Board approval, the CAISO will post the final comprehensive Transmission Plan to the CAISO Website. In years in which no comprehensive Transmission Plan is issued as part of the regular biennial process, the CAISO may bring projects more urgently needed to address reliability issues to the CAISO Governing Board, following the process described in Section 24.3.3.1. According to the schedule set forth in the Business Practice Manual, transmission upgrades and additions with capital costs of \$50 million or less can be approved by CAISO management and Subscriber Participating TO transmission facilities, provided the CAISO Governing Board has already approved the Subscriber Participating TO as a Participating TO or conditional Participating TO, may proceed to permitting and construction prior to Governing Board approval of the plan. Such CAISO management approved transmission solutions may be subject to a competitive solicitation process, consistent with Section 24.5, on an accelerated schedule that will allow the approved Project Sponsor to proceed to permitting and construction prior to Governing Board approval of the plan. CAISO management may also expedite approval of a transmission solution ahead of the approval schedule for other solutions with capital costs of \$50 million or less if: (1) there is an urgent need for approval of the solution ahead of the schedule established in the Business Practice Manual; (2) there is a high degree of certainty that approval of the upgrade or addition will not conflict with other solutions being considered in Phase 2; and (3) the need to accelerate a solution is driven by the CAISO's study process or by external circumstances. Should the CAISO find that a transmission solution with capital of \$50 million or less is needed on an expedited basis, after a stakeholder consultation process, CAISO management shall brief the Governing Board at a regularly-scheduled or special public

session prior to approving the solution and conducting the competitive solicitation, if appropriate. A Participating Transmission Owner will have the responsibility to construct, own, finance and maintain any Local Transmission Facility deemed needed under this section 24 that is located entirely within such Participating Transmission Owner's PTO Service Territory or footprint. The provisions of Section 24.5 will apply to a Regional Transmission Facility deemed needed under this section 24. Section 24.5 will also apply to any transmission upgrades or additions that are associated with both Regional Transmission Facilities and Local Transmission Facilities but for which the CAISO determines that it is not reasonable to divide construction responsibility among multiple Project Sponsors. Construction and ownership of a selected Interregional Transmission Project shall be determined in accordance in Section 24.17.3.

## **24.5 Transmission Planning Process Phase 3**

### **24.5.1 Competitive Solicitation Process**

According to the schedule set forth in the Business Practice Manual, in the month following the CAISO Governing Board's approval of the comprehensive Transmission Plan, or a supplemental assessment to the final comprehensive Transmission Plan, whichever is applicable, the CAISO will initiate a period of at least ten (10) weeks that will provide an opportunity for Project Sponsors to submit specific proposals to finance, own, and construct the Regional Transmission Facilities and any Long-Term Regional Transmission Facilities subject to competitive solicitation identified in the comprehensive Transmission Plan or supplemental assessment, interim reliability assessment, or Long-Term Regional Transmission Plan. If the transmission solution adopted in Phase 2 involves an upgrade or improvement to, addition on, or a replacement of a part of an existing Participating TO facility, the Participating TO will construct and own such upgrade, improvement, addition or replacement facilities unless a Project Sponsor and the Participating TO agree to a different arrangement. For Regional Transmission Facilities with capital costs of \$50 million or less that were approved by CAISO management before Governing Board approval of the comprehensive Transmission Plan, the ten week period will be initiated following management approval of the facility, and the Project Sponsor selection process may follow an accelerated schedule described in the Business Practice Manual. Such proposals must include plan of service details and supporting information as set forth in the Business Practice Manual sufficient to: (1) enable the CAISO to determine whether the Project Sponsor meets the qualification criteria specified in section 24.5.3.1; (2) enable the

CAISO to determine whether a Project Sponsor's proposal meets the proposal qualification criteria in section 24.5.3.2; and (3) enable the CAISO, if there are multiple qualified Project Sponsors bidding on the same Regional Transmission Facility or Long-Term Regional Transmission Facility, to conduct a comparative analysis of the proposals and Project Sponsors and select an Approved Project Sponsor as described in section 24.5.3.5. The project proposal will identify the authorized governmental body from which the Project Sponsor will seek siting approval for the project.

Within 30 days after the CAISO posts the revised draft comprehensive Transmission Plan, a supplemental assessment to the final comprehensive Transmission Plan, interim reliability assessment, or Long-Term Regional Transmission plan to its website, whichever is applicable, for each Regional Transmission Facility or Long-Term Regional Transmission Facility identified in the applicable plan or assessment that is subject to competitive solicitation, the CAISO will post, for informational purposes only, those existing qualification criteria and selection factors, in addition to any binding cost containment commitments, which the CAISO believes are key for purposes of selecting an Approved Project Sponsor for the particular transmission solution, consistent with the comparative analysis described in section 24.5.4 and the project sponsor qualification and selection criteria specified in sections 24.5.3.1 and 24.5.4, respectively. The posting of such key criteria is solely intended to provide information to Project Sponsors to assist them in the preparation of their applications and to highlight specific topics to which particular attention should be paid in the application given their importance in connection with a particular Regional Transmission Facility or Long-Term Regional Transmission Facility. The posting of the key selection criteria is not a replacement or substitute for the qualification and selection criteria set forth in sections 24.5.3.1 and 24.5.4, and in its comparative analysis conducted in accordance with section 24.5.4, the CAISO is required to comparatively assess all of the qualification and selection criteria, not just those listed as key selection criteria. In its posting of the key selection criteria, the CAISO cannot add new or different criteria than those already specified in sections 24.5.3.1 and 24.5.4. To determine the key criteria for each transmission solution subject to competitive solicitation, the CAISO will consider: (1) the nature, scope and urgency of the need for the transmission solution; (2) expected severity of siting or permitting challenges; (3) the size of the transmission solution, potential financial risk associated with the transmission solution, expected capital cost magnitude, cost overrun likelihood and the ability of the

Project Sponsor to contain costs; (4) the degree of permitting, rights-of-way, construction, operation and maintenance difficulty; (5) risks associated with the construction, operation and maintenance of the transmission solution ; (6) technical and engineering design difficulty or whether specific expertise in design or construction is required; (7) special circumstances or difficulty associated with topography, terrain or configuration; (8) specific facility technologies or materials associated with the transmission solution; (9) binding cost containment measures, including cost caps; (10) abandonment risk; and (11) whether the overall cost of the transmission solution impacts the CAISO's prior determination of, and inclusion in, the applicable transmission plan of the more efficient or cost effective solution during Phase 2 of the transmission planning process or in the Long-Term Regional Transmission Planning process. The posting of the key selection criteria shall not undermine the CAISO's prior determination in Phase 2 of the transmission planning process or the Long-Term Regional Transmission Planning process of the more efficient or cost-effective transmission solution to be reflected in the comprehensive Transmission Plan or the Long-Term Regional Transmission Plan, nor shall the posting of the key criteria replace or be inconsistent with the CAISO's obligation under section 24.5.4 to undertake a comparative analysis of each Project Sponsor with respect to each Project Sponsor qualification and selection criterion. If the CAISO determines in Phase 2 of the transmission planning process or in the Long-Term Regional Transmission Planning process that more than one transmission solution could constitute the more efficient or cost-effective solution to meet a specific identified need depending on the outcome of the competitive solicitation, the CAISO shall have the authority to identify more than one potential transmission solution in the comprehensive Transmission Plan or in the Long-Term Regional Transmission Plan. Under those circumstances, based on the outcome of the competitive solicitation, the CAISO will make the final determination of which alternative transmission solution identified in the Board-approved comprehensive Transmission Plan or the Long-Term Regional Transmission Plan constitutes the more efficient or cost-effective transmission solution to be selected for construction.

#### **24.5.2 Project Sponsor Application and Information Requirements**

All project sponsors must submit a Project Sponsor application form as set forth in the Business Practice Manual and posted on the CAISO website. Any entity may submit a Project Sponsor application to finance, construct, own, operate and maintain a transmission solution identified in the applicable

transmission plan or assessment subject to the competitive solicitation process. There is no requirement that a Project Sponsor first be qualified before it may submit a Project Sponsor application for such a transmission solution.

#### **24.5.2.1 Opportunity for Collaboration**

Any entity interested in collaborating with another entity may notify the CAISO of such interest within two weeks after the CAISO opens the competitive solicitation window for a specified Regional Transmission Facility or Long-Term Regional Transmission Facility. The CAISO will post a list of entities interested in collaborating and their contact information on the CAISO website. Prior notice to the CAISO is not a prerequisite for a Project Sponsor to submit an application, including a joint application, to finance, own, construct, operate, and maintain a Regional Transmission Facility or Long-Term Regional Transmission Facility under Section 24.5. All Project Sponsors, including collaborating Project Sponsors, must submit an application prior to the close of the competitive solicitation window.

#### **24.5.2.2**

A Project Sponsor will provide to the CAISO, Participating TOs (as listed on Appendix F to the Transmission Control Agreement), and Approved Project Sponsors a copy of all initial filings it submits in a FERC docket that affect the rates (including the Transmission Revenue Requirement), terms, or conditions of service for any Regional Transmission Facility or Long-Term Regional Transmission Facility that is the subject of an ongoing competitive solicitation process under this section 24.5. The Project Sponsor will provide such copy either via email or first class U.S. mail on the same day it makes the filing with FERC; provided that if the copy is sent via U.S. mail, the Project Sponsor will satisfy the requirement if it places the copy in the mail on the date of filing. The CAISO will post the contact information for Approved Project Sponsors on the CAISO website.

#### **24.5.2.3 Project Sponsor Information Requirements**

The application to be submitted to the CAISO by an entity desiring to become an Approved Project Sponsor shall include the following general information (as well as related details) in response to the questions on the application form:

- (a) The following information:
  - (i) A proposed financial plan demonstrating that adequate capital resources are

available to the Project Sponsor to finance the transmission solution, and that constructing, operating and maintaining the facilities will not significantly impair the Project Sponsor's creditworthiness or financial condition;

- (ii) A showing from the Project Sponsor's most recent audited financial statements that the Project Sponsor's assets are in excess of liabilities as a percentage of the total cost of the transmission solution;
  - (iii) Financial funding ratios from the most recent audited financial statements;
  - (iv) Credit arrangements between affiliated entities, including corporate parent, and compliance with regulatory restrictions and requirements; and
  - (v) Bankruptcy, dissolution, merger or acquisition history;
- (b) The credit rating from Moody's Investor Services and Standard & Poors of the Project Sponsor, or its parent company, controlling shareholder, or any other entity providing a bond guaranty or corporate commitment to the Project Sponsor;
  - (c) Information showing the Project Sponsor's ability to assume liability for major losses resulting from failure of, or damage to, the transmission facility, including damage after the facility has been placed into operation;
  - (d) The project in-service date of each transmission solution with a construction plan and timetable;
  - (e) A description of the Project Sponsor's proposed engineering, construction, maintenance and management teams, including relevant capability and experience;
  - (f) A description of the Project Sponsor's resources for operating and maintaining the transmission solution after it is placed in-service;
  - (g) A discussion of the capability and experience of the Project Sponsor that would enable it to comply with all on-going scheduling, operating, and maintenance activities required for each transmission solution, including those required by the tariff, business practice manuals, policies, rules, guidelines, and procedures established by the CAISO;
  - (h) Resumes for all key management personnel, including contractors, that will be involved in obtaining siting approval and other required regulatory approvals and for constructing,

operating and maintaining each transmission solution;

- (i) A description of the Project Sponsor's business practices that demonstrate consistency with Good Utility Practice for proper licensing, designing and right-of-way acquisition for constructing, operating and maintaining transmission solutions that will become part of the CAISO Controlled Grid;
- (j) The Project Sponsor's previous record regarding construction, operation and maintenance of transmission facilities within and outside the CAISO Controlled Grid;
- (k) The Project Sponsor's pre-existing procedures and practices for acquiring and managing right of way and other land for transmission facility, or, in the absence of preexisting procedures or practices, a detailed description of its plan for right of way and other land acquisition;
- (l) A description of existing rights of way or substations upon which all or a portion of the transmission facility can be located and incremental costs, if any, that would be incurred in connection with placing new or additional facilities associated with the transmission solution on such existing rights of way;
- (m) The Project Sponsor's preexisting practices or procedures for mitigating the impact of the transmission solution on affected landowners and for addressing public concerns regarding facilities associated with the transmission solution. In the absence of such preexisting practices or procedures, the Project Sponsor shall provide a detailed plan for mitigating such impacts and addressing public concerns;
- (n) A description of the following and any related or relevant information regarding:
  - (i) the proposed structure and composition, conductor size and type;
  - (ii) the proposed route and rights of way; and
  - (iii) a plan for topography issues;
- (o) Cost containment capabilities and cost cap, if any;
- (p) Description of the Project Sponsor's plan for complying with standardized maintenance and operation practices and all applicable reliability standards;
- (q) Any other strengths and advantages that the Project Sponsor and its team may have to



build and own the transmission solution, as well as any specific efficiencies or benefits demonstrated in its Project Sponsor proposal, including the potential use of alternative transmission technologies; and

- (r) The authorized government body from which the Project Sponsor will seek siting approval for the transmission solution and the authority of the selected siting authority to impose binding cost caps or cost containment measures on the Project Sponsor, as well as its history of imposing such measures.

Additional details about the information that must be submitted is set forth in the Business Practice Manual and on the application form. On the CAISO's request, the Project Sponsor will provide additional information that the CAISO reasonably determines is necessary to conduct its qualification and selection evaluation with respect to the particular transmission solutions that are subject to competitive solicitation.

\* \* \* \* \*

### **24.5.3 Project Sponsor and Proposal Qualifications**

#### **24.5.3.1 Project Sponsor Qualifications**

After posting the list of information-sufficient applications and, if applicable, after the conclusion of any applicable collaboration process under Section 24.5.2.2, the CAISO will evaluate the information submitted by each Project Sponsor in response to the questions on the application pertaining to sections 24.5.2.1(a)-(i) to determine whether the Project Sponsor has demonstrated that its team is physically, technically, and financially capable of (i) completing the needed transmission solution in a timely and competent manner; and (ii) operating and maintaining the transmission solution in a manner that is consistent with Good Utility Practice and applicable reliability criteria for the life of the project, based on the following qualification criteria:

- (a) whether the Project Sponsor has demonstrated that it has assembled, or has a plan to assemble, a sufficiently-sized team with the manpower, equipment, knowledge and skill required to undertake the design, construction, operation and maintenance of the transmission solution;

- (b) whether the Project Sponsor and its team have demonstrated that they have sufficient financial resources, by providing information including, but not limited to, satisfactory credit ratings, audited financial statements, or other financial indicators;
- (c) whether the Project Sponsor and its team have demonstrated the ability to assume liability for major losses resulting from failure of any part of the facilities associated with the transmission solution by providing information such as letters of credit, letters of interest from financial institutions regarding financial commitment to support the Project Sponsor, insurance policies or the ability to obtain insurance to cover such losses, the use of account set asides or accumulated funds, the revenues earned from the transmission solution, sufficient credit ratings, contingency financing, or other evidence showing sufficient financial ability to cover these losses in the normal course of business;
- (d) whether the Project Sponsor has (1) proposed a schedule for development and completion of the transmission solution consistent with need date identified by the CAISO; and (2) has the ability to meet that schedule;
- (e) whether the Project Sponsor and its team have the necessary technical and engineering qualifications and experience to undertake the design, construction, operation and maintenance of the transmission solution;
- (f) whether the Project Sponsor makes a commitment to become a Participating TO for the purpose of turning the Regional Transmission Facility or Long-Term Regional Transmission Facility that the Project Sponsor is selected to construct and own as a result of the competitive solicitation process over to the ISO's Operational Control , to enter into the Transmission Control Agreement with respect to the transmission solution, to adhere to all Applicable Reliability Criteria and to comply with NERC registration requirements and NERC and WECC standards, where applicable.

If the CAISO determines that a Project Sponsor meets these criteria, it shall be deemed a qualified Project Sponsor.

#### **24.5.3.2 Proposal Qualification**

After evaluating the Project Sponsor's qualifications as described in section 24.5.3.1, the ISO will

determine whether the transmission solution proposed by a Project Sponsor is qualified for consideration, based on the following criteria:

- (a) Whether the proposed design of the transmission solution is consistent with needs identified in the applicable transmission plan;
- (b) Whether the proposed design of the transmission solution satisfies Applicable Reliability Criteria and CAISO Planning Standards;

\* \* \* \* \*

#### **24.8.5 Obligation to Provide Updated Information**

If material changes to the information provided under Sections 24.8 occur during the biennial Transmission Planning Process, the providers of the information must provide notice to the CAISO of the changes.

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#### **24.11 Long-Term Planning**

As part of the regional transmission planning process, the CAISO shall conduct Long-Term Regional Transmission Planning. The CAISO will commence a Long-Term Regional Transmission Planning cycle every four years and will determine whether to select any facilities no later than three years from the date when each Long-Term Regional Transmission Planning cycle began. In accordance with the specific schedule outlined in the Business Practice Manual, the CAISO generally will, in year one, develop the scenarios, in years two and three, evaluate the scenarios, and in year three determine whether to select any facilities. The Long-Term Regional Transmission Planning process shall, at a minimum:

- (a) Utilize a base case consistent with the base case developed for the comprehensive Transmission Planning Process as one of the Long-Term Scenarios, which the CAISO determines is the most likely scenario to occur.
- (b) Reflect a planning horizon covering a minimum of twenty (20) years.

- (c) Identify Long-Term Regional Transmission Needs and Long-Term Regional Transmission Facilities to meet those needs through the development of Long-Term Scenarios.
- (d) Develop and use a minimum of three Long-Term Scenarios utilizing factors in the categories of factors to consider in consultation with stakeholders.
- (e) Disclose the methodology, criteria, assumptions, data and other information that underlie transmission plans, including Long-Term Scenarios.
- (f) Measure the required seven benefits and use those measured benefits to evaluate Long-Term Regional Transmission Facilities.
- (g) Use selection criteria that provide the opportunity for CAISO to select Long-Term Regional Transmission Facilities in the regional transmission plan for purposes of cost allocation that more efficiently or cost-effectively address Long-Term Regional Transmission Needs.
- (h) Allow incumbent and nonincumbent transmission developers to utilize the regional cost allocation methodology outlined in Section 24.14.
- (i) Provide an opportunity for Relevant State Entities and interconnection customers to voluntarily fund any projects not selected.
- (j) Provide an opportunity for Interregional Transmission Projects submitted to the CAISO as a Relevant Planning Region to be evaluated as potential solutions to CAISO Long-Term Regional Transmission Needs pursuant to Section 24.18.

#### **24.11.1 Development of Long-Term Scenarios**

##### **24.11.1.1 Input Factor Categories**

The CAISO will identify and use factors in the following categories to determine the assumptions that will be used in the development of Long-Term Scenarios:

- (a) Federal, federally-recognized Tribal, state, and local laws and regulations affecting the resource mix and demand.
- (b) Federal, federally-recognized Tribal, state, and local laws and regulations on decarbonization and electrification.

- (c) State-approved integrated resource plans and expected supply obligations for load-serving entities.
- (d) Trends in fuel costs and in the cost, performance, and availability of generation, electric storage resources, and building and transportation electrification technologies.
- (e) Resource retirements, including likely resource retirements beyond those that have been publicly announced.
- (f) Generator interconnection requests and withdrawals.
- (g) Utility commitments and federal, federally-recognized Tribal, state, and local policy goals that affect Long-Term Regional Transmission Needs.

#### **24.11.1.2 Accounting for Factors**

In the development of the Long-Term Scenarios, the CAISO will account for the factors that it has determined are likely to affect Long-Term Regional Transmission Needs and will make a determination as to how that factor is likely to affect Long-Term Regional Transmission Needs.

The CAISO will use each factor individually or collectively to determine the assumptions that will be used in the development of the Long-Term Scenarios that will result in plausible and diverse Long-Term Scenarios. In developing the Long-Term Scenarios, the CAISO may generalize how all of the discrete factors in a single category of factors will, in aggregate, affect the development of the Long-Term Scenarios. The CAISO will only utilize factors which it determines are likely to have a measurable effect on Long-Term Regional Transmission Needs. Where factors may have overlapping effects on the planning assumptions, the CAISO will avoid double counting the effect that those factors have on assumptions used to develop Long-Term Scenarios. Where there is overlap between categories (a)-(c) and (d)-(g), or a factor could be considered in a category in the first three or the second four, the CAISO will consider it in the appropriate category (a)-(c).

For categories of factors listed in 24.11.1.1(a)-(c), the CAISO will assume that legally binding obligations are followed, state-approved integrated resource plans are followed, and expected supply obligations for load-serving entities are fully met. The CAISO will account for and be consistent with, and not discount, factors in the first three categories. When the CAISO determines that a factor that is based on state's law, regulation, or policy, is likely to affect needs, the CAISO will rely on the state in determining

how to account for such a state-related factor.

For categories of factors listed in 24.11.1.1(d)-(g) the CAISO will use discretion in how to account for each factor and may put more weight on the factor by modeling more than the projected change in some or all Long-Term Scenarios to reflect the CAISO's view regarding the likelihood that the anticipated effects on Long-Term Regional Transmission Needs due to that factor will occur.

#### **24.11.1.3 Stakeholder Input – Factors to be Used in Long-Term Scenarios**

- (a) In accordance with the schedule set forth in the Business Practice Manual, the CAISO will provide stakeholders, states, and federally-recognized Tribes with a meaningful opportunity to propose factors for consideration, provide information and identify sources of best available data, propose how a factor may affect Long-Term Regional Transmission Needs, and explain how that factor could be reflected in the development of Long-Term Scenarios, including the extent to which it is appropriate to discount the effects of certain factors on Long-Term Regional Transmission Needs. The CAISO will provide a comment period of at least four weeks during which stakeholders, states, and federally-recognized Tribes may submit proposals for consideration in the development of the factors under the categories of factors included in Section 24.11.1.2. Stakeholders, states, and federally-recognized Tribes may also propose which future outcomes are probable and can be captured through assumptions made in the development of Long-Term Scenarios.
- (b) Following review of relevant information, including comments submitted pursuant to Section 24.11.1.3(a), the CAISO will prepare and post on the CAISO Website a draft of the factors to be used in the development of the Long-Term Scenarios and a description of how they will be utilized. The CAISO will issue a Market Notice announcing the availability of such draft, soliciting comments, and scheduling a public conference(s) as required by Section 24.11.1.3(c).
- (c) No less than one (1) week subsequent to the posting of the draft factors, the CAISO will conduct a minimum of one (1) public meeting open to all to review, discuss, and recommend modifications to the draft factors. Additional meetings, web conferences, or

teleconferences may be scheduled as needed. All stakeholder meetings, web conferences, or teleconferences shall be noticed by Market Notice.

- (d) Interested parties will be provided a minimum of two (2) weeks following the first public meeting to provide additional comments on the draft factors. All comments on the draft factors will be posted by the CAISO to the CAISO Website.
- (e) The CAISO will determine and publish to the CAISO Website the final factors pursuant to Section 24.11.1.4 and how the CAISO will account for each specific factor in accordance with the procedures set forth in the Business Practice Manual.

#### **24.11.1.4 Posting of Factors**

Following the public meeting(s) described in Section 24.11.1.3, and under the schedule set forth in the Business Practice Manual, the CAISO will publish on CAISO Website: (1) the list of factors in each of the seven required categories the CAISO will account for in each of its Long-Term Scenarios; (2) a description of each factor the CAISO will account for; (3) a general statement explaining how the CAISO will account for each of those factors; (4) a description of the extent to which the CAISO will discount any factors in factor categories (d)-(g) in any of the Long-Term Scenarios; and (5) list of factors the CAISO considered but did not incorporate. These factors will inform the study plan applicable to the Long-Term Transmission Planning process cycle. The study plan, to the extent the CAISO chooses to issue a separate study plan for the Long-Term Transmission Planning process in any cycle, will additionally include the requirements identified in Section 24.3.2 to the extent applicable to conducting the Long-Term Transmission Planning process.

#### **24.11.1.5 Specificity of Data Inputs**

The CAISO will use best available data inputs that correspond to the factors likely to affect Long-Term Regional Transmission Needs and when developing Long-Term Scenarios. Such data inputs are timely, developed using best practices and diverse and expert perspectives, and adopted in consultation with stakeholders under Section 24.11.1.3. Data inputs will be updated, as necessary, each time the CAISO reassesses and revises its Long-Term Scenarios.

The CAISO will publicly disclose, subject to any applicable confidentiality protections, information and data inputs that the CAISO will use to create each Long-Term Scenario.

#### **24.11.1.6 Sensitivities for High-Impact, Low-Frequency Events**

The CAISO will develop at least one sensitivity, applied to each Long-Term Scenario when performing the evaluation assessments, to account for uncertain operational outcomes that determine the benefits of and/or need for transmission facilities during multiple concurrent and sustained generation and/or transmission Outages due to an extreme weather event across a wide area.

The CAISO may develop additional sensitivities to account for other high-impact, low frequency events as the CAISO deems necessary.

#### **24.11.2 Measurement of Benefits**

The CAISO's Long-Term Regional Transmission Plan will measure and use the following seven benefits for any transmission projects identified by the CAISO, for use in the evaluation of Long-Term Scenarios as described in Section 24.11.3. The CAISO will calculate the benefits of Long-Term Regional Transmission Facilities over a time horizon that covers, at a minimum, 20 years starting from the estimated in-service date of the transmission facilities. In the case that the CAISO estimates the costs of any Long-Term Regional Transmission Facility beyond the in-service date of the transmission facilities, the CAISO will estimate those future costs over the same time horizon as the estimated benefits. The seven benefits to be measured and used are:

1. Reduced costs of avoided or delayed transmission investment otherwise required to address reliability needs or replace aging transmission facilities. The CAISO will measure this benefit as the reduction in investment costs due to avoided or deferred reliability transmission facilities and aging infrastructure.
2. Either (a) reduced loss of load probability, defined as the reduced frequency of loss of load events by providing additional pathways for connecting generation resources with load (if planning reserve margin is constant), or (b) reduced planning reserve margin (PRM), defined as a benefit of reduced capital cost of generation needed to meet resource adequacy requirements while holding loss of load probabilities constant. The CAISO will measure this benefit as either the reduction in frequency of loss of load events or the reduction in planning reserve margins while holding loss of load probabilities constant. The CAISO will determine which approach will be measured



during the Long-Term Regional Planning process consistent with its Long-Term Regional Transmission Need(s), but will not measure both simultaneously.

3. Reduction in production costs, including savings in fuel and other variable operating costs of power generation, that are realized when transmission facilities allow for the increased dispatch of suppliers that have lower incremental costs of production, displacing higher-cost supplies as well as reduction in market prices as lower-cost suppliers set market clearing prices. The CAISO will measure this benefit as the reduction in production costs using production cost modeling simulations.
4. Reduced total energy necessary to meet demand stemming from reduced energy losses incurred in transmittal of power from generation to loads. The CAISO will measure this benefit as the reduction in the amount of total energy and transmission energy losses incurred in transmittal of power from generation to loads using production cost modeling simulations.
5. Reduced production costs during transmission Outages that significantly increase transmission congestion. The CAISO will measure this benefit as the reduction in congestion costs during transmission outages that significantly increase transmission congestion using production cost modeling simulations.
6. Reduced production costs and reduced loss of load (or emergency procurements necessary to support the system), including due to increased Interregional Transfer Capability, during extreme weather events and unexpected system conditions, such as unusual weather conditions or fuel shortages that result in multiple concurrent and sustained generation and/or transmission outages. The CAISO will account for circumstances that contribute to these events that are specific to the CAISO planning region. The CAISO will measure this benefit as reduced production costs, and loss of load, and increase in interregional transfer capability during extreme weather events and unexpected system conditions. The CAISO will account for mitigation of unexpected system conditions during periods when transmission facilities have particularly high value, not only during extreme weather events.

7. Reduced energy losses during peak load reduces generation capacity investment needed to meet the peak load and transmission losses. The CAISO will measure this benefit as reduction in generation capacity investment due to reduced energy losses during peak load.

### **24.11.3 Evaluation of Long-Term Scenarios**

The CAISO's evaluation process and selection criteria aim to ensure the more efficient or cost-effective Long-Term Regional Transmission Facilities are selected to address needs. The CAISO will identify one or more transmission facilities that addresses each identified need.

In accordance with the study plan and with the procedures and schedules in the Business Practice Manual, the CAISO will perform assessments necessary to evaluate scenarios and sensitivities developed in accordance with section 24.11.1 for its Long-Term Regional Transmission Plan and determine the need for Long Term Regional Transmission Facilities. According to the schedule set forth in the applicable Business Practice Manual, the CAISO will post the preliminary results of its assessments on the CAISO Website. The CAISO's preliminary assessment results shall be posted not less than one-hundred and twenty (120) days after the factors are published.

Determination of transmission solutions to be included in the Long-Term Regional Transmission Plan will be based on the CAISO's assessments, consideration of potential transmission solutions and non-transmission or generation alternatives proposed by stakeholders, coordination with Participating Transmission Owners including identifying opportunities for right-sizing replacement transmission facilities in accordance with section 24.11.3.2, measurement of benefits in accordance with section 24.11.2 and selection criteria in accordance with section 24.11.3.3.

#### **24.11.3.1 Stakeholder Proposals for Transmission Solutions**

As part of the CAISO's Long-Term Regional Transmission Planning evaluation process and in accordance with the schedule set forth in the applicable Business Practice Manual, nonincumbent developers will be given the opportunity to propose transmission facilities following the publication of the CAISO's preliminary assessment results on the CAISO Website in accordance with section 24.11.3.

#### **24.11.3.2 Opportunities to Right-Size Replacement Transmission Facilities**

As part of the Long-Term Regional Transmission Planning evaluation process, the CAISO will evaluate

whether facilities (1) operating at or above 200 kV, and (2) that the Participating Transmission Owner that owns the facility anticipates replacing in-kind with a new transmission facility during the next ten years can be “right-sized” to more efficiently or cost-effectively address a Long-Term Transmission Need. The CAISO and Participating TOs will coordinate on any such existing facilities following the publication of the CAISO’s preliminary assessment results on the CAISO website in accordance with section 24.11.3. Any proposed Right-Sized Replacement Transmission Facility will be evaluated in the same manner as any other proposed Long-Term Regional Transmission Facility.

#### **24.11.3.3 Selection Criteria**

The CAISO will use selection criteria to guide its determination of whether to select any facilities in the Long-Term Regionally Transmission Planning process for development. The CAISO will perform the evaluation with the aim to ensure that more efficient or cost-effective transmission facilities are selected in the regional transmission plan for purposes of cost allocation and while seeking to maximize benefits accounting for costs over time without over-building transmission facilities. The CAISO will identify at least one facility to meet each need, but is not required to select any facility. In order for the CAISO to consider a facility for selection the facility must:

- (a) have measurable benefits across the multiple of the seven categories of benefits in at least one scenario in accordance with section 24.11.2; and
- (b) have a BCR of 1.00 or higher in at least one scenario.

The CAISO may select a transmission facility under its Long-Term Regional Transmission Planning process if the facility is net beneficial in more than one Long-Term Scenario and sensitivity analyses even if other transmission facilities have a higher benefit-cost ratio or provide more net benefits in a single Long-Term Scenario or particular sensitivity.

#### **24.11.4 Selection of Long-Term Regional Facilities and Conclusion of Long-Term Planning Cycle**

No later than three years following the beginning of the planning cycle and in accordance with the schedule set forth in the applicable Business Practice Manual, the CAISO will determine whether to select or not select identified facilities based on the selection criteria in Section 24.11.3. Such selection will take place only after proposals submitted pursuant to Section 24.11.3.1 and 24.11.3.2 are

considered. The CAISO will post on the CAISO Website the specific determinations explaining why each identified facility was or was not selected. Simultaneous with the posting of the final determinations, the CAISO will include in a Market Notice a notice triggering the start of the voluntary funding opportunity open window, consistent with Section 24.11.5.1. The conclusion of that open window and, if applicable, the memorialization of any proposal for voluntary funding will conclude the Long-Term Regional Transmission Planning cycle.

With the exception of Right-Sized Replacement Transmission Facilities which will be subject to a federal right of first refusal, Long-Term Regional Transmission Facilities will be eligible for competitive solicitation. Consistent with the alignment schedule, projects eligible for competitive solicitation will go through the Phase 3 process in Section 24.5.

#### **24.11.5 Cost Allocation for Long-Term Regional Transmission Solutions**

Cost responsibility for transmission additions or upgrades selected in the Long-Term Regional Transmission Planning process will be determined pursuant to Section 24.14. Transmission developers selected, whether incumbent or nonincumbent, will be eligible to use the applicable cost allocation method.

##### **24.11.5.1 Voluntary Funding Opportunity**

Relevant State Entities and Interconnection Customers will have the opportunity to voluntarily fund the cost of, or a portion of the cost of, a Long-Term Regional Transmission Facility that otherwise would not meet the CAISO's selection criteria. After the final selection of facilities is published pursuant to 24.11.4, entities interested in pursuing a voluntary funding opportunity may propose to the CAISO a framework for a specific facility during the two months following notice. The CAISO will evaluate whether the proposal reduces the cost of the facility to CAISO ratepayers and eliminates other deficiencies in the CAISO's original benefits evaluation in order to meet the selection criteria identified in Section 24.11.3.3. To the extent that the proposal allows the facility to meet the selection criteria, the CAISO may, but is not required to, move forward with seeking CAISO Governing Board approval for any such project and proposal.

In order to move forward, the voluntary funding proposal must mitigate all operational concerns identified by the CAISO to the satisfaction of the CAISO. To ensure that the funding parties are financially able to

pay the construction and operating costs of the facility, the CAISO may require (1) a demonstration of creditworthiness (e.g., an appropriate credit rating), or (2) sufficient security in the form of an unconditional and irrevocable letter of credit or other similar security sufficient to meet its responsibilities and obligations for the proposed partial or full costs of the facility.

The CAISO and the funding parties will memorialize the proposal through the execution of an agreement between the CAISO and the funding parties. Pursuing voluntary funding does not automatically confer any particular rights or preferences to the funding parties beyond those awarded to a Project Sponsor for a Merchant Transmission Facility pursuant to Section 24.14.3. Any such proposed rights must be included in any proposal for the CAISO to consider in its evaluation.

#### **24.11.6           Reevaluation of Selected Long-Term Transmission Facilities**

Under specific circumstances and utilizing the specific criteria outlined in Section 24.11.6, the CAISO will reevaluate specific facilities that were previously selected in the Long-Term Regional Transmission Planning cycle until the date at which substantial procurement must take place to meet the requested in-service date for that particular facility, to be specifically memorialized in any Approved Project Sponsor Agreement or similar agreement, after which the facilities will no longer be subject to reevaluation.

##### **24.11.6.1       Reevaluation Triggering Circumstances and Criteria**

The CAISO will reevaluate Long-Term Regional Transmission Facilities that were previously selected when one of the following circumstances exists for a specific project:

- (a)       delays in the development of a previously selected Long-Term Regional Transmission Facility would jeopardize the CAISO's ability to meet its reliability needs or reliability-related service obligations;
- (b)       the actual or project costs of a previously selected Long-Term Regional Transmission Facility significantly exceed cost estimates used in the selection of the facility by 10% or more; or
- (c)       significant changes in federal, federally-recognized Tribal, state, or local laws or regulations cause reasonable concern that a previously selected facility may no longer meet the selection criteria.

In order to determine when one of these three situations occurs, thereby triggering the reevaluation, the

CAISO will monitor the development activities of each Long-Term Regional Transmission Facility, including but not limited to, by requiring quarterly reports from developers of such facilities to determine if:

- (1) the project is experiencing delays which will result in the inability to meet the requested in-service date, in which case the CAISO will evaluate whether this delay jeopardizes the CAISO's ability to meet reliability needs or reliability-related service obligations prior to triggering a reevaluation; or
- (2) actual or projected costs exceed estimated costs by 20%; or
- (3) the CAISO becomes aware of a significant change in federal, federally-recognized Tribal, state, or local laws or regulations, in which case the CAISO will evaluate whether such change in law or regulation causes reasonable concern that a previously selected facility may no longer meet the selection criteria prior to triggering a reevaluation.

The CAISO will not reevaluate any selected facility on basis of significant changes in laws or regulations unless during the planning cycle in which the facility was selected, the facility's targeted in-service date was in the latter half of the 20-year planning horizon.

#### **24.11.6.2 Process for Reevaluation**

Consistent with Long-Term Regional Transmission Planning evaluation, the reevaluation will seek to maximize benefits accounting for costs over time without over-building transmission facilities.

Reevaluation on the basis of project delays, cost increases or significant changes in laws or regulations will be part of a subsequent cycle and will take into account not only any updated costs of the facility but also updated benefits. Depending on the degree to which the project no longer meets the selection criteria or delays are due to the transmission developer, the CAISO may impose a mitigation plan, reassign the project, modify the facility, or remove the facility from the plan. If the CAISO finds that the project continues to meet selection criteria and any delays do not have a significant impact on meeting identified Long-Term Needs, the CAISO will take no action.

\* \* \* \* \*

#### **24.14 Cost Responsibility for Transmission Additions or Upgrades**

Cost responsibility for transmission additions or upgrades constructed pursuant to this Section 24 shall be determined pursuant to this Section 24.14. To the extent that the CAISO seeks to change this methodology in the future as it relates to Long-Term Regional Transmission Facilities, the CAISO will consult with Relevant State Entities prior to amending the cost responsibility methodology. For consultation initiated by the CAISO, the CAISO will document publicly on the CAISO website the results of its consultation with Relevant State Entities prior to filing any amendment. Relevant State Entities may seek for the CAISO to amend this cost responsibility method as related to Long-Term Regional Transmission Facilities, in which case the CAISO will consult with such Relevant State Entities.

\* \* \* \* \*

#### **24.18 Order 1000 Common Interregional Tariff**

##### **24.18.1 Annual Interregional Information Exchange**

Annually, prior to the Annual Interregional Coordination Meeting, the CAISO will make available by posting on its website or otherwise provide to each of the other Planning Regions the following information, to the extent such information is available in its regional transmission planning process, relating to regional transmission needs in the CAISO's transmission planning region and potential solutions thereto:

- (i) study plan or underlying information that would typically be included in a study plan, such as:
  - (a) identification of base cases;
  - (b) planning study assumptions; and
  - (c) study methodologies;
- (ii) initial study reports (or system assessments);
- (iii) regional transmission plan; and
- (iv) information regarding Long-Term Regional Transmission Needs:
  - (a) the Long-Term Regional Transmission Needs discussed in the interregional

- transmission coordination meetings;
- (b) any interregional transmission facilities proposed or identified in response to Long-Term Regional Transmission Needs;
- (c) the voltage level, estimated cost, and estimated in-service date of the interregional transmission facilities proposed or identified as part of Long-Term Regional Transmission Planning;
- (d) the results of any cost-benefit evaluation of such interregional transmission facilities, with such results including both any overall benefits identified (which may occur across multiple transmission planning regions), as well as any benefits particular to each transmission planning region; and
- (e) the interregional transmission facilities, if any, selected to meet Long-Term Regional Transmission Needs.

(collectively referred to as “Annual Interregional Information”).

The CAISO will post its Annual Interregional Information on its website according to its regional transmission planning process. Each other Planning Region may use in its regional transmission planning process the CAISO's Annual Interregional Information. The CAISO may use in its regional transmission planning process Annual Interregional Information provided by other Planning Regions. The CAISO is not required to make available or otherwise provide to any other Planning Region (i) any information not developed by the CAISO in the ordinary course of its regional transmission planning process, (ii) any Annual Interregional Information to be provided by any other Planning Region with respect to such other Planning Region, or (iii) any information if the CAISO reasonably determines that making such information available or otherwise providing such information would constitute a violation of the Commission's Standards of Conduct or any other legal requirement. Annual Interregional Information made available or otherwise provided by the CAISO shall be subject to applicable confidentiality and CEII restrictions and other applicable laws, under the CAISO's regional transmission planning process.

#### **24.18.2 Annual Interregional Coordination Meeting**

The CAISO will participate in an Annual Interregional Coordination Meeting with the other Planning Regions. The CAISO will host the Annual Interregional Coordination Meeting in turn with the other



Planning Regions, and is to seek to convene such meeting in February, but not later than June 30<sup>th</sup>. The Annual Interregional Coordination Meeting is to be open to stakeholders. The CAISO will provide notice of the meeting to its stakeholders in accordance with its regional transmission planning process.

At the Annual Interregional Coordination Meeting, topics discussed may include the following:

- (i) each Planning Region's most recent Annual Interregional Information (to the extent it is not confidential or protected by CFI or other legal restrictions);
- (ii) identification and preliminary discussion of interregional solutions, including conceptual solutions, that may meet regional transmission needs or Long-Term Regional Transmission Needs in each of two or more Planning Regions more cost effectively or efficiently;
- (iii) updates of the status of ITPs being evaluated or previously included in the CAISO's comprehensive transmission plan; and
- (iv) information regarding respective Long-Term Regional Transmission Needs as well as Long-Term Regional Transmission Facilities to meet those needs.

\* \* \* \* \*

#### **24.18.3.2 Joint Evaluation of an Interregional Transmission Project**

For each Interregional Transmission Project that meets the requirements of Section 24.18.3.1, the CAISO (if it is a Relevant Planning Region) will participate in a joint evaluation by the Relevant Planning Regions that is to commence in the calendar year of the Interregional Transmission Project's submittal in accordance with Section 24.18.3.1, or the immediately following calendar year. With respect to any such Interregional Transmission Project, the CAISO (if it is a Relevant Planning Region) will confer with the other Relevant Planning Region(s) regarding the following:

- (i) Interregional Transmission Project data and projected Interregional Transmission Project costs; and
- (ii) the study assumptions and methodologies it is to use in evaluating the Interregional Transmission Project pursuant to its regional transmission planning process.

For each Interregional Transmission Project that meets the requirements of Section 24.18.3.1, the CAISO (if it is a Relevant Planning Region):

- (a) will seek to resolve any differences it has with the other Relevant Planning Regions relating to the Interregional Transmission Project or to information specific to other Relevant Planning Regions insofar as such differences may affect the CAISO's evaluation of the Interregional Transmission Project;
- (b) will provide stakeholders an opportunity to participate in the CAISO's activities under this Section 24.18.3.2 in accordance with its regional transmission planning process and the Long-Term Regional Transmission Planning process;
- (c) will notify the other Relevant Planning Regions if the CAISO determines that the Interregional Transmission Project will not meet any of its regional transmission needs or Long-Term Regional Transmission Needs; thereafter the CAISO has no obligation under this Section 24.18.3.2 to participate in the joint evaluation of the Interregional Transmission Project; and
- (d) will determine under its regional transmission planning process if such Interregional Transmission Project is a more cost effective or efficient solution to one or more of the CAISO's regional transmission needs.

\* \* \* \* \*

## **Appendix A**

### **New Definitions**

#### **- Assumptions Meeting**

As part of the comprehensive Transmission Planning Process, a stakeholder meeting to review the criteria, assumptions, and models related to local and regional transmission planning.

#### **- In-Kind Replacement Transmission Facility**

For purposes of the right-sizing reform, a new transmission facility that: (1) would replace an existing

transmission facility that the transmission provider has identified in its required 10-year in-kind replacement estimate as needing to be replaced; (2) would result in no more than incidental increase in capacity over the existing transmission facility identified as needed to be replaced; and (3) is located in the same general route as, and/or uses the existing rights-of-way of, the existing transmission facility identified as needing to be replaced.

**- Long-Term Regional Transmission Facility**

Regional transmission facility that is identified as part of Long-Term Regional Transmission Planning to address Long-Term Regional Transmission Needs.

**- Long-Term Regional Transmission Need(s)**

Transmission needs identified through Long-Term Regional Transmission Planning by, among other things, running scenarios and considering the enumerated categories of factors.

**- Long-Term Regional Transmission Plan**

The report prepared by the CAISO, pursuant to Section 24, which documents the outcome of the Long-Term Regional Transmission Planning Process as defined in the Study Plan.

**- Long-Term Regional Transmission Planning**

Regional transmission planning on a 20 year, forward-looking, and comprehensive basis to identify Long-Term Regional Transmission Needs, identify transmission facilities that meet such needs, measure the benefits of those transmission facilities, and evaluate those transmission facilities for potential selection in the regional transmission plan for purposes of cost allocation as the more efficient or cost-effective regional transmission facilities to meet Long-Term Regional Transmission Needs.

**- Long-Term Scenarios**

Scenarios that incorporate various assumptions using best available data inputs about the future electric power system over a sufficiently long-term, forward-looking transmission planning horizon to identify Long-Term Regional Transmission Needs and enable the identification and evaluation of transmission facilities to meet such transmission needs.

**- Needs Meeting**

As part of the comprehensive Transmission Planning Process a stakeholder meeting to review identified reliability criteria violations and other transmission needs that drive the need for local or regional

transmission facilities.

**- Relevant State Entity**

Any state entity responsible for electric utility regulation or siting electric transmission facilities within the state or portion of a state located in the transmission planning region, including any state entity as may be designated for that purpose by the law of such state.

**- Right-Sized Replacement Transmission Facility**

A new transmission facility selected in the Long-Term Transmission Planning Process that (1) would meet the need to replace an existing transmission facility that a transmission provider has identified in its in-kind replacement estimate as one that it plans to replace with an In-Kind Replacement Transmission Facility while also addressing a long-term need; (2) results in more than incidental increase in the capacity of an existing transmission facility that a transmission provider has identified for replacement in its in-kind replacement estimate; and (3) is located in the same general route as, and/or uses or expands the existing rights-of-way of the existing transmission facility that a transmission provider has identified for replacement in its in-kind replacement estimate.

**- Solutions Meeting**

As part of the comprehensive Transmission Planning Process, a stakeholder meeting to review potential solutions to reliability criteria violations and other transmission needs.

**Changes to existing tariff definitions**

*Redlines represent proposed changes from existing Appendix A*

**- Regional Transmission Facility**

A transmission facility that is owned by a Participating TO or to which a Participating TO has an Entitlement that is represented by a Converted Right, that is under the CAISO Operational Control, and that is not (1) a Local Transmission Facility or a Location Constrained Resource Interconnection Facility, and supporting facilities, (2) a Long-Term Regional Transmission Facility, or (3) a Merchant Transmission Facility.

**- Study Plan**

The plan to be developed pursuant to Section 24.3.1, which sets forth the technical studies to be performed during the Transmission Planning Process.

**- Transmission Plan**

The report prepared by the CAISO on annual basis, or on a biennial basis (every two years) starting in 2028, pursuant to Section 24, which documents the outcome of the comprehensive Transmission Planning Process as defined in the Study Plan.

**- Unified Planning Assumptions**

The assumptions to be developed pursuant to Section 24.3.1 and used, to the maximum extent possible, in performing technical studies identified in the Study Plan as part of the Transmission Planning Process.

**Attachment B – Red-Lined Tariff Sheets**  
**Tariff Amendment – Order No. 1920 Compliance Filing**  
**California Independent System Operator Corporation**  
**December 9, 2025**

## **Section 24**

### **24. Comprehensive Transmission Planning Process**

#### **24.1 Overview**

The CAISO will develop a comprehensive Transmission Plan and approve transmission solutions using the Transmission Planning Process set forth in this Section 24. For purposes of this Section 24, transmission solutions include both entirely new transmission facilities and upgrades or additions to existing transmission facilities that are proposed, considered, and/or specified in the comprehensive Transmission Plan during Phase 2 to meet an identified need determined by the CAISO. The CAISO will consider the use of alternative transmission technologies including dynamic line ratings, advanced power flow control devices, advanced conductors, and transmission switching when evaluating transmission solutions for new regional transmission facilities, upgrades to existing transmission facilities, and Long-Term Regional Transmission Facilities. Alternatives to transmission solutions are referred to as non-transmission solutions. Solutions to meet an identified need can be either transmission solutions or non-transmission solutions. The CAISO will analyze the need for transmission solutions in accordance with the methodologies and criteria set forth in this Section 24, the Transmission Control Agreement, and the applicable Business Practice Manuals. The comprehensive Transmission Plan will identify Merchant Transmission Facilities meeting the requirements for inclusion in the Transmission Plan and transmission solutions needed (1) to maintain System Reliability; (2) to satisfy the requirements of a Location Constrained Resource Interconnection Facility; (3) to maintain the simultaneous feasibility of allocated Long-Term CRRs; (4) as additional components or expansions to LGIP Network Upgrades are identified pursuant to Section 24.4.6.5; (5) to meet state, municipal, county and federal policy requirements and directives, including renewable portfolio standards policies; and (6) to reduce congestion costs, production supply costs, transmission losses, or other electric supply costs resulting from improved access to cost-effective resources.

Beginning in 2027, the CAISO will transition to two complementary transmission planning cycles: (a) a comprehensive transmission plan performed biennially (every two years) with the first biennial comprehensive transmission plan to be issued in 2030; and (b) a Long-Term Regional Transmission Plan performed every four years, with a plan first issued in 2030, and further described in Section 24.11.

Additionally, the CAISO will perform reliability studies in each year a comprehensive Transmission Plan is not issued to ensure continued reliability of the CAISO controlled grid and to comply with Applicable Reliability Criteria, CAISO Planning Standards and state mandated resource adequacy study requirements. This is further described in Section 24.3.3.1. For purposes of this Section 24, when referring to the comprehensive Transmission Planning Process, the term “the year X~~/(X+1)~~ planning cycle” will refer to the comprehensive Transmission Planning Process initiated during year X-2 to complete a comprehensive Transmission Plan in year X+1. For purposes of this Section 24, when referring to the Long-Term Regional Transmission Planning process, the term “the year Y planning cycle” will refer to the Long-Term Regional Transmission Planning process initiated during year Y-3 to complete a comprehensive Long-Term Plan in year Y.

#### **24.1.1 ~~[Not Used]~~ Transitional Annual Transmission Plan Unique Procedures**

Prior to the first biennial comprehensive Transmission Plan to be issued in 2030, the CAISO will issue a comprehensive Transmission Plan performed on an annual cycle initiated in 2025 and completed in 2026, a comprehensive Transmission Plan performed on an annual cycle initiated in 2026 and completed in 2027 and a final comprehensive transmission plan performed on an annual cycle initiated in 2027 and completed in 2028. For purposes of this Section 24, when referring to the transitional comprehensive Transmission Planning Processes up to and ending with the 2027-2028, the term “the year X/X+1 planning cycle” will refer to the comprehensive Transmission Planning Process initiated during year X to complete a comprehensive Transmission Plan in year X+1. The CAISO will follow the tariff provisions in this Section 24 to perform or otherwise complete remaining phases of these transmission plans, except to the extent the tariff indicates the comprehensive transmission plan will be performed on a biennial basis. These annual Transmission Plans will be performed in accordance with the schedule set forth in the Business Practice Manual. Pursuant to Section 24.3.3.1, the CAISO will also perform reliability studies in 2029 to ensure continued reliability of the CAISO controlled grid and to comply with Applicable Reliability Criteria, CAISO Planning Standards, and state mandated resource adequacy study requirements.

#### **24.1.2 [Not Used]**

#### **24.1.3 [Not Used]**

#### **24.1.4 [Not Used]**



## 24.2 Nature of the Transmission Planning Process

Beginning in 2027 with the first plan issued in 2030, tThe CAISO will develop the biennialannual, comprehensive Transmission Plan and approve transmission upgrades or additions using a Transmission Planning Process with three (3) phases. In Phase 1, the CAISO will develop and complete the Unified Planning Assumptions and Study Plan. In Phase 2, the CAISO will complete the comprehensive Transmission Plan. In Phase 3, the CAISO will evaluate proposals to construct and own certain transmission upgrades or additions specified in the comprehensive Transmission Plan and any eligible projects approved in the Long-Term Regional Planning process. The 2027-2028 Transmission Plan will be the last plan issued in which the first two (2) phases are completed in an annual, rather than biennial, cycle. The Transmission Planning Process shall, at a minimum:

- (a) Coordinate and consolidate in a single plan the transmission needs of the CAISO Balancing Authority Area for maintaining the reliability of the CAISO Controlled Grid in accordance with Applicable Reliability Criteria and CAISO Planning Standards, in a manner that promotes the economic efficiency of the CAISO Controlled Grid and considers federal and state environmental and other policies affecting the provision of Energy;
- (b) Reflect a planning horizon covering a minimum of ten (10) years that considers previously approved transmission upgrades and additions, Demand Forecasts, Demand-side management, capacity forecasts relating to generation technology type, additions and retirements, and such other factors as the CAISO determines are relevant;
- (c) Seek to avoid unnecessary duplication of facilities and ensure the simultaneous feasibility of the CAISO Transmission Plan and the transmission plans of interconnected Balancing Authority Areas, and coordinate with other Planning Regions and interconnected Balancing Authority Areas in accordance with, but not limited to, the Order 1000 Common Interregional Coordination and Cost Allocation Tariff Language in Section 24.18;
- (d) Identify existing and projected limitations of the CAISO Controlled Grid's physical, economic or operational capability or performance and identify transmission upgrades and additions, including any alternative transmission technologies and non-transmission

- alternatives thereto, deemed needed to address the existing and projected limitations;
- (e) Account for any effects on the CAISO Controlled Grid of the interconnection of Generating Units, including an assessment of the deliverability of such Generating Units in a manner consistent with CAISO interconnection procedures;
  - (f) Provide an opportunity for Interregional Transmission Projects submitted to the CAISO as a Relevant Planning Region to be evaluated as potential solutions to CAISO regional transmission needs; and
  - (g) Evaluate projects of entities that have commenced the process to become Subscriber Participating TOs or have initiated related transmission interconnection studies with one or more existing Participating TOs.

**24.2.1 [Not Used]**

**24.2.2 [Not Used]**

**24.2.3 [Not Used]**

**24.2.4 [Not Used]**

**24.3 Comprehensive Transmission Planning Process Phase 1**

Phase 1 consists of the development of the Unified Planning Assumptions and Study Plan.

**24.3.1 Inputs to the Unified Planning Assumptions and Study Plan**

The CAISO will develop Unified Planning Assumptions and a Study Plan using information and data from the approved Transmission Plans<sup>s</sup> developed in the previous planning cycles<sup>s</sup>. The CAISO will consider the following in the development of the Unified Planning Assumptions and Study Plan:

- (a) WECC base cases, as may be modified for the relevant planning horizon;
- (b) Transmission upgrades and additions approved by the CAISO in past Transmission Planning Process cycles, including upgrades and additions which the CAISO has determined address transmission needs in the comprehensive Transmission Plan developed in the previous planning cycle;
- (c) Long-Term Regional Transmission Facilities approved by the CAISO in past Long-Term Planning cycles;
- (~~d~~e) Category 2 policy-driven transmission upgrades and additions from a prior planning cycle

as described in Section 24.4.6.6;

- (~~ed~~) Location Constrained Resource Interconnection Facilities conditionally approved under Section 24.4.6.3;
- (~~fe~~) Network Upgrades ~~identified pursuant to Section 25 and Appendices S, T, U, V, W, Y, Z, BB, CC, DD, EE, and FF~~ that were not otherwise included in the comprehensive Transmission Plan from the previous ~~biennial~~annual cycle, ~~and; that meet the qualifying criteria described in Section 24.4.6.5;~~
- (~~gf~~) Operational solutions validated by the CAISO in the Local Capacity Technical Study under Section 40.3.1;
- (~~hg~~) Policy requirements and directives, as appropriate, including programs initiated by state, federal, municipal and county regulatory agencies;
- (~~ih~~) Energy Resource Areas or similar resource areas identified by Local Regulatory Authorities;
- (~~ji~~) Demand response programs that are proposed for inclusion in the base case or assumptions for the comprehensive Transmission Plan;
- (~~kj~~) Alternative transmission technologies in addition to ~~Generation-generation~~ and other non-transmission alternatives that are proposed for inclusion in ~~long-term~~ planning studies as alternatives to or that incorporate transmission additions or upgrades;
- (~~lk~~) Beginning with the 2011/2012 planning cycle, Economic Planning Study requests submitted in comments on the draft Unified Planning Assumptions and Study;
- (~~m~~) Planned facilities in interconnected Balancing Authority Areas;
- (~~nm~~) The most recent Annual Interregional Information provided by other Planning Regions;
- (~~oa~~) Import Capability expansion requests submitted in comments on the draft Unified Planning Assumptions and Study; and
- (~~pe~~) Subscriber Participating TO transmission facilities, and any generation facilities receiving Subscriber Rights and requesting to interconnect to the CAISO Controlled Grid over Subscriber Participating TO transmission facilities, that have met the following criteria:
  - 1. The Applicant Participating Transmission Owner Agreement has been executed;

2. The generator interconnection agreement with the Subscriber is executed;
3. The Subscriber Participating TO has provided written notice to the CAISO that Construction Activities regarding the Subscriber Participating TO transmission facilities have begun; and
4. Transmission interconnection studies required by the interconnecting Transmission Owner(s) have begun.

\* \* \* \* \*

#### **24.3.2 Content of the Unified Planning Assumptions and Study Plan**

The Unified Planning Assumptions and Study Plan shall, at a minimum, provide:

- (a) The planning data and assumptions to be used in the Transmission Planning Process cycle, including, but not limited to, those related to Demand Forecasts and distribution, potential generation capacity additions and retirements, and transmission system modifications;

\* \* \* \* \*

- (i) Identification of state or federal, municipal or county requirements or directives that the CAISO will utilize, pursuant to Section 24.4.6.6, to identify policy-driven transmission solutions; ~~and~~
- (j) The status of transmission capacity reservations for long lead-time resources for policy-driven transmission solutions; ~~and-~~
- (k) To the extent the CAISO utilizes the same Study Plan for a coordinated Long-Term Transmission Planning process cycle, the Study Plan will include information on the factors likely to affect Long-Term Regional Transmission Needs as required by Section 24.11.1.4.

#### **24.3.3 Stakeholder Input – Unified Planning Assumptions/Study Plan**

- (a) Beginning with the 2011/2012 planning cycle and in accordance with the schedule set forth in the Business Practice Manual, the CAISO will provide a comment period during which Market Participants, electric utility regulatory agencies and all other interested parties may submit the following proposals for consideration in the development of the draft Unified Planning Assumptions and Study Plan:
- (i) Demand response programs for inclusion in the base case or assumptions;
  - (ii) Generation and other non-transmission alternatives, consistent with Section 24.3.2(a) proposed as alternatives to transmission solutions; and
  - (iii) State, municipal, county or federal policy requirements or directives.
- (b) Following review of relevant information, including stakeholder comments submitted pursuant to Section 24.3.3(a), the CAISO will prepare and post on the CAISO Website a draft of the Unified Planning Assumptions and Study Plan. The CAISO will issue a Market Notice announcing the availability of such draft, soliciting comments, and scheduling a public conference(s) as required by Section 24.3.3(c);
- (c) No less than one (1) week subsequent to the posting of the draft Unified Planning Assumptions and Study Plan, the CAISO will conduct a minimum of one (1) public meeting open to Market Participants, electric utility regulatory agencies, and other interested parties to review, discuss, and recommend modifications to the draft Unified Planning Assumptions and Study Plan (Assumptions Meeting). Additional meetings, web conferences, or teleconferences may be scheduled as needed. All stakeholder meetings, web conferences, or teleconferences shall be noticed by Market Notice. The CAISO will publicly post the meeting materials no fewer than five calendar days prior to any additional meetings to allow time for stakeholders to review materials in advance of each meeting;
- (d) Interested parties will be provided a minimum of two (2) weeks following the first public meeting to provide comments on the draft Unified Planning Assumptions and Study Plan. Such comments may include Economic Planning Study requests based on the comprehensive Transmission Plan from the prior cycle and Import Capability expansion

study requests. All comments on the draft Unified Planning Assumptions and the Study Plan will be posted by the CAISO to the CAISO Website. Interested parties may submit comments in advance of the Assumptions Meeting. The CAISO will respond to questions or comments from stakeholders at the meeting or in later written comments;

- (e) Following the public conference(s), and under the schedule set forth in the Business Practice Manual, the CAISO will determine and publish to the CAISO Website the final Unified Planning Assumptions and Study Plan in accordance with the procedures set forth in the Business Practice Manual. The final Unified Planning Assumptions and Study Plan will include an explanation as to the public policy requirements or directives that were selected for consideration in the current planning cycle as well as the suggested public policy requirements and directives that were not selected for consideration and the reasons therefore. The CAISO will post the base cases to be used in the technical studies to its secured website as soon as possible after the final Unified Planning Assumptions and Study Plan have been published;
- (f) A public policy requirement or directive selected for consideration in a transmission planning cycle will be carried over into subsequent transmission planning cycles unless the ISO determines that such public policy requirement or directive has been eliminated, modified, or is otherwise not applicable or relevant for transmission planning purposes in a current transmission planning cycle. The ISO will post on its website an explanation of any decision not to consider a previously identified public policy requirement or directive from consideration in the current transmission planning process cycle.

#### **24.3.3.1 Updating the Unified Planning Assumptions**

The CAISO will review the Unified Planning Assumptions and Study Plan developed for the biennial comprehensive Transmission Plan on an annual basis to determine the need for an update to the Unified Planning Assumptions and Study Plan. In the case that the CAISO determines an update is needed, the CAISO will provide stakeholders an opportunity to comment on and the CAISO will respond to any comments to any updates to the Unified Planning Assumptions and Study Plan pursuant to a schedule outlined in the Business Practice Manual. The CAISO will use the finalized Unified Planning Assumptions

and Study Plan, following stakeholder engagement, to perform an interim reliability assessment consisting of technical assessments to identify whether any reliability needs must be addressed on an expedited basis for compliance with NERC Reliability Standards, Applicable Reliability Criteria, CAISO Planning Standards, other applicable planning standards and other criteria established by the Business Practice Manual. In the off-year in which a comprehensive Transmission Plan is not issued, and if the CAISO identifies transmission upgrades and additions, including any alternative transmission technologies and non-transmission alternatives thereto, deemed needed to address reliability needs prior to the issuance of the next comprehensive Transmission Plan, the CAISO will bring such upgrades and additions to the CAISO Board for approval.

\* \* \* \* \*

## **24.4 Transmission Planning Process Phase 2**

### **24.4.1 Conducting Technical Studies**

- (a) In accordance with the Unified Planning Assumptions and Study Plan and with the procedures and deadlines in the Business Practice Manual, the CAISO will perform, or direct the performance by third parties of technical studies and other assessments necessary to develop the comprehensive Transmission Plan, including such technical studies and other assessments as are necessary in order to determine Regional Transmission Facilities or other alternatives identified by the CAISO during the Phase 2 studies in the comprehensive Transmission Plan. According to the schedule set forth in the applicable Business Practice Manual, the CAISO will post the preliminary results of its technical studies and proposed mitigation solutions on the CAISO Website. The CAISO's technical study results and mitigation solutions shall be posted not less than one-hundred and twenty (120) days after the final Unified Planning Assumptions and Study Plan are published, along with the results of the technical studies conducted by Participating TOs or other third parties at the direction of the CAISO.
- (b) All technical studies, whether performed by the CAISO, the Participating TOs or other

third parties under the direction of the CAISO, must utilize the Unified Planning Assumptions for the particular technical study to the maximum extent practical, and deviations from the Unified Planning Assumptions for the particular technical study must be documented in results of each technical study. The CAISO will measure the results of the studies against Applicable Reliability Criteria, the CAISO Planning Standards, and other criteria established by the Business Practice Manual. After consideration of the comments received on the preliminary results, the CAISO will complete, or direct the completion of, the technical studies and post the final study results on the CAISO Website.

- (c) The CAISO technical study results will identify needs and proposed solutions to meet Applicable Reliability Criteria, CAISO planning standards, and other applicable planning standards. The CAISO and Participating TOs shall coordinate their respective transmission planning responsibilities required for compliance with the NERC Reliability Standards and for the purposes of developing the comprehensive annual Transmission Plan according to the requirements and time schedules set forth in the Business Practice Manual.

#### **24.4.2 Proposed Reliability Driven Transmission Solutions**

Pursuant to the schedule described in the Business Practice Manual and based on the technical study results, the CAISO, CEC, CPUC, and other interested parties may propose any transmission solutions, including alternative transmission technologies described in Section 24.1, deemed necessary to ensure System Reliability consistent with Applicable Reliability Criteria and CAISO Planning Standards through the Phase 2 Request Window. Participating TOs will submit such proposed transmission solutions through the Phase 2 Request Window within thirty (30) days after the CAISO posts its preliminary technical study results. The substantive description of reliability driven projects is set forth in Section 24.4.6.2.

\* \* \* \* \*



#### **24.4.5 Determination of Needed Transmission Solutions**

To determine which transmission solutions should be included in the comprehensive Transmission Plan, the CAISO will evaluate the conceptual transmission facilities identified by the CAISO during the Phase 2 studies, proposed solutions for reliability-driven needs, LCRIF project proposals, proposals required to maintain the feasibility of long term CRRs, interconnection-related transmission facilities pursuant to Section proposed Network Upgrades pursuant to Section 24.4.6.5 and the results of Economic Planning Studies or other economic studies the CAISO has performed and will consider potential transmission solutions and non-transmission or generation alternatives proposed by interested parties. In determining which transmission solutions should be included in the comprehensive Transmission Plan the CAISO shall consider the degree to which a Regional Transmission Facility may be substituted for one or more Local Transmission Facilities as a more efficient or cost effective solution to identified needs. The CAISO will consider whether regional facilities that incorporate, or consist solely of, alternative transmission technologies described in Section 24.1, would be more efficient or cost-effective than selecting new facilities or upgrades without them.

#### **24.4.6 Categories of Transmission Solutions**

\* \* \* \* \*

##### **24.4.6.4 Solutions to Maintain the Feasibility of Long Term CRRs**

The CAISO is obligated to ensure the continuing feasibility of Long Term CRRs that are allocated by the CAISO over the length of their terms. In furtherance of this requirement the CAISO shall, as part of its biennialannual Transmission Planning Process cycle, test and evaluate the simultaneous feasibility of allocated Long Term CRRs, including, but not limited to, when acting on the following types of projects: (a) planned or proposed transmission solutions; (b) Generating Unit or transmission retirements; (c) Generating Unit interconnections; and (d) the interconnection of new Load. Pursuant to such evaluations, the CAISO shall identify the need for any transmission solutions required to ensure the continuing feasibility of allocated Long Term CRRs over the length of their terms and shall publish a Congestion Data Summary along with the results of the CAISO technical studies. In assessing the need for

transmission solutions to maintain the feasibility of allocated Long Term CRRs, the CAISO, in coordination with the Participating TOs and other Market Participants, shall consider lower cost alternatives to the construction of transmission solutions, such as acceleration or expansion of existing transmission solutions; Demand-side management; Remedial Action Schemes; constrained-on Generation; interruptible Loads; reactive support; or in cases where the infeasible Long Term CRRs involve a small magnitude of megawatts, ensuring against the risk of any potential revenue shortfall using the CRR Balancing Account and uplift mechanism described in Section 11.2.4. As part of the CAISO's Transmission Planning Process, the Participating TOs and Market Participants shall provide the necessary assistance and information to the CAISO to allow it to assess and identify transmission solutions that may be necessary under Section 24.4.6.4. The CAISO will determine the solution that meets the identified need to maintain the feasibility of long-term CRRs in the more efficient or cost effective manner.

#### **24.4.6.5 LGIP-Interconnection-Related Transmission Facilities Network Upgrades**

~~Beginning with the 2011/2012 planning cycle,~~ Network Upgrades originally identified during the generator interconnection process the Phase II Interconnection Study or Interconnection Facilities Study Process of the Large Generation Interconnection Process as set forth in Section 7 of Appendix Y that are not already included in a signed LGIA may be assessed as Interconnection-Related Transmission Facilities as part of the comprehensive Transmission Plan if these Network Upgrades satisfy the following criteria:

- (a) The Network Upgrades consist of ~~new transmission lines~~ interconnection-related network upgrade(s) with a voltage of 200 kV or above, and have capital costs of ~~\$100-30~~ million or greater;
- (b) The CAISO has identified interconnection-related network upgrade(s) in Interconnection Studies in at least two interconnection queue cycles;
- (c) The interconnection request(s) driving the need for the network upgrade(s) in two or more cycles has been withdrawn and no more than five calendar years have passed between the date of an earlier interconnection request withdrawal and the date of a later interconnection request withdrawal;
- (d) The CAISO has not identified an interconnection-related network upgrade to address the

relevant interconnection-related transmission need in an executed GIA or GIA that the Interconnection Customer requested be filed unexecuted;

- (e) The Interconnection Request withdrawals associated with the repeatedly identified interconnection-related transmission need occurred no earlier than seven calendar years prior to the commencement date of the regional transmission planning and cost allocation cycle.

~~The Network Upgrade is a new 500-kV substation that has capital costs of \$100 million or greater;~~

~~or~~

- ~~(c) The Network Upgrades have a capital cost of \$200 million or more.~~

The CAISO will post a list of the interconnection-related network upgrade(s) eligible for assessment under this section, in the Transmission Planning Process in accordance with the schedule set forth in the applicable Business Practice Manual. Network Upgrades included in the comprehensive Transmission Plan under this section, may include additional components not included in the interconnection-related network upgrade(s) originally identified during the generator interconnection process if the CAISO determines during the Transmission Planning Process that such components are needed under section 24.1. If, through the Transmission Planning Process, the CAISO identifies any additional components of interconnection-related network upgrade(s) that result in the need for other transmission solutions, the responsibility to build and own such transmission solutions will be determined by this Section 24, according to the category of those other transmission solutions.

~~The CAISO will post a list of the Network Upgrades eligible for assessment in the Transmission Planning Process in accordance with the schedule set forth in the applicable Business Practice Manual. Network Upgrades included in the comprehensive Transmission Plan may include additional components not included in the Network Upgrades originally identified during the Phase II Interconnection Study or may be expansions of the Network Upgrades originally identified during the Phase II Interconnection Study if the CAISO determines during the Transmission Planning Process that such components or expansions are needed under section 24.1. Network Upgrades identified in the LGIP Phase II studies but not assessed in the Transmission Planning Process will be included in Large Generator Interconnection~~

~~Agreements, as appropriate. Network Upgrades assessed in the Transmission Planning Process but not modified or replaced will be included in Large Generator Interconnection Agreements, as appropriate. Construction and ownership of Network Upgrades specified in the comprehensive Transmission Plan under this section, including any needed additional components or expansions, will be the responsibility of the Participating TO if the Phase II studies identified the original Network Upgrade as needed and such Network Upgrade has not yet been set forth in an executed Large Generator Interconnection Agreement. To the extent that additional components or expansions to Network Upgrades remain the responsibility of the Participating TO and such Network Upgrades are subsequently abandoned, the Participating TO shall be presumed to be eligible, subject to prudence and any other applicable review by FERC, to include in its TRR the costs of such Network Upgrades if the costs attributable to the abandonment of such Network Upgrades (as modified, replaced or otherwise reconfigured in the Transmission Planning Process) exceed the amounts funded by Interconnection Customers pursuant to Appendix Y. This presumption shall not apply in the case of Network Upgrades which the applicable Participating TO agreed to up-front fund independent of any obligation to fund pursuant to the Transmission Planning Process. If, through the Transmission Planning Process, the CAISO identifies any additional components or expansions of Network Upgrades that result in the need for other transmission solutions, the responsibility to build and own such transmission solutions will be determined by this Section 24, according to the category of those other transmission solutions. Any decision in the Transmission Planning Process to modify Network Upgrades identified in the Large Generator Interconnection Process will not increase the cost responsibility of the Interconnection Customer as described in Appendix Y, Section 7. Category 1 policy-driven transmission solutions identified under Section 24.4.6.7 could supplant the need for LGIP Network Upgrades that would be developed in subsequent Generator Interconnection Process cycles. To the extent that a Category 1 policy-driven transmission solution eliminates or downsizes the need for a Network Upgrade, the Interconnection Customer's cost responsibility for such Network Upgrade shall be eliminated or reduced. Any financial security posting shall be adjusted accordingly.~~

#### **24.4.6.6 Policy-Driven Transmission Solutions**

Once the CAISO has identified reliability-driven solutions, LCRIF projects eligible for conditional or final approval, solutions needed to maintain long-term CRR feasibility, qualified Merchant Transmission

Facilities, needed LGIP Network Upgrades as described in Section 24.4.6.5, and Subscriber Participating TO transmission facilities as well as generation facilities seeking to interconnect to the CAISO Controlled Grid on Subscriber Participating TO transmission facilities, the CAISO shall evaluate transmission solutions needed to meet state, municipal, county, or federal policy requirements or directives as specified in the Study Plan pursuant to Section 24.3.2(i). Policy-driven transmission solutions will be either Category 1 or Category 2 transmission solutions. Category 1 transmission solutions are those which under the criteria of this section are found to be needed and are recommended for approval as part of the comprehensive Transmission Plan in the current cycle. Category 2 transmission solutions are those that could be needed to achieve state, municipal, county or federal policy requirements or directives but have not been found to be needed in the current planning cycle based on the criteria set forth in this section. The CAISO will determine the need for, and identify such policy-driven transmission solutions that efficiently and effectively meet applicable policies under alternative resource location and integration assumptions and scenarios, while mitigating the risk of stranded investment. The CAISO will create a baseline scenario reflecting the assumptions about resource locations that are most likely to occur and one or more reasonable stress scenarios that will be compared to the baseline scenario. Any transmission solutions that are in the baseline scenario and at least a significant percentage of the stress scenarios may be Category 1 transmission solutions. Consistent with the state, federal, municipal or county requirements or directives underlying the Category 1 transmission solution, the Transmission Plan will specify where the CAISO will reserve the transmission capacity created by a Category 1 transmission solution for certain long lead-time resources, and the amount of reserved capacity. The Transmission Plan will specify criteria for eligible resources, including at a minimum, but without limitation: location, MW capacity, generating technology, and expected in-service date. Each Transmission Plan may modify these criteria for policy-driven transmission solutions as needed to meet state, federal, municipal or county requirements or directives.

\* \* \* \* \*

#### **24.4.7 Description of Transmission Solutions**

The transmission solutions identified in the revised draft and final comprehensive Transmission Plan, or in a supplemental assessment to the final comprehensive Transmission Plan, that are subject to the competitive solicitation process will provide sufficient engineering detail to permit Project Sponsors to submit complete proposals, under section 24.5.1 to build the identified transmission solution. As further described in the Business Practice Manual, such details may include, but are not limited to:

- (a) Minimum Conductor Ampacity;
- (b) Approximate Line impedance required;
- (c) Approximate Series compensation levels;
- (d) Substation bus and breaker configuration;
- (e) Breaker clearing times;
- (f) Transformer characteristics (capacity, impedance, tap range);
- (g) Minimum Shunt capacitor and reactor sizes;
- (h) Minimum FACTS device specifications;
- (i) RAS requirements;
- (j) Planning level cost estimates;
- (k) Projected in-service date;

(l) Any alternative transmission technologies to be incorporated.

#### **24.4.8 Additional Contents of Comprehensive Transmission Plan**

In addition to the detailed descriptions of specific needed transmission additions and upgrades, the draft and final comprehensive Transmission Plan may include: (1) the results of technical studies performed under the Study Plan; (2) determinations and recommendations regarding the need for identified transmission upgrades and additions and their identification as either Local or Regional Transmission Facilities; (3) assessments of transmission upgrades and additions submitted as alternatives to the potential solutions to transmission needs identified by the CAISO and studied during the Transmission Planning Process cycle; (4) results of Economic Planning Studies (except for the 2010/2011 cycle); (5) an update on the status of transmission upgrades or additions previously approved by the CAISO, including identification of mitigation plans, if necessary, to address any potential delay in the anticipated completion of an approved transmission upgrade or addition; (6) a description of transmission additions and

upgrades with an estimated capital investment of \$50 million or more for which additional studies are required before being presented to the CAISO Governing Board for approval following completion of the studies; (7) a description of Category 2 transmission upgrades or additions recommended for consideration in future planning cycles; (8) identification of Interregional Transmission Projects that were submitted in the current planning cycle, could potentially meet regional needs, and will be evaluated in the next planning cycle; ~~and~~ (9) determinations and recommendations regarding the need for Interregional Transmission Projects that have been evaluated and found to be more cost effective and efficient solutions to regional transmission needs and that satisfy all requirements relevant to meeting such needs.

Beginning with plans issued during 2028, the draft and final comprehensive Transmission Plan will include an explanation as to why dynamic line ratings, advanced power flow control devices, advanced conductors, and/or transmission switching were or were not incorporated into selected Regional Transmission Facilities.

#### **24.4.9 Phase 2 Stakeholder Process: Needs Meetings and Solutions Meeting**

- (a) According to the schedule and procedures set forth in the Business Practice Manual, and no fewer than 25 calendar days after the Assumptions Meeting, the CAISO will schedule a Needs Meeting consisting of one (1) public meeting after the CAISO technical study results have been posted and Participating TOs have submitted (i) the results of technical studies conducted at the direction of the CAISO (if applicable); and (ii) reliability-driven solutions. All stakeholder meetings, web conferences, or teleconferences shall be noticed by Market Notice, and all meeting materials will be posted no fewer than five days in advance of any meeting. Interested parties will be provided a minimum two (2) week period to provide written comments regarding the technical study results and the proposals submitted by the Participating ~~TOs~~ TOs and may submit comments before and after the Needs Meetings. The CAISO will respond to questions or comments from stakeholders.
- (b) The CAISO will schedule at least one (1) other public ~~meeting~~ Needs Meeting before the draft comprehensive Transmission Plan is posted to provide information about any policy-driven transmission solution evaluations or economic planning studies that have been

completed since the prior public meeting was held, as well as updated information about any studies or evaluations that are still in progress. Notice of such meeting, web conference or teleconference will be provided to stakeholders via Market Notice.

- (c) In accordance with the schedule and procedures in the Business Practice Manual, but not less than one-hundred and twenty (120) days after the results of the CAISO's technical studies are posted and not less than six (6) weeks after the Request Window closes, the CAISO will post a draft comprehensive Transmission Plan. The CAISO will subsequently conduct a public conference, or Solutions Meeting, regarding the draft comprehensive Transmission Plan and solicit comments, consistent with the timelines and procedures set forth in the Business Practice Manual. Additional meetings, web conferences, or teleconferences may be scheduled as needed. All stakeholder meetings, web conferences, or teleconferences shall be noticed by Market Notice and such notice shall be posted to the CAISO Website. All meeting materials will be posted no fewer than five days in advance of any meeting. Stakeholders will have the opportunity to submit comments before and after each meeting. After consideration of comments, the CAISO will post the revised draft comprehensive Transmission Plan to the CAISO Website.

#### **24.4.10 Transmission Plan Approval Process**

The revised draft comprehensive Transmission Plan, along with the stakeholder comments, will be presented to the CAISO Governing Board for consideration and approval. Upon approval of the plan, all needed transmission additions and upgrades, and Interregional Transmission Projects, net of all transmission and non-transmission alternatives considered in developing the comprehensive Transmission Plan, will be deemed approved by the CAISO Governing Board. Following Governing Board approval, the CAISO will post the final comprehensive Transmission Plan to the CAISO Website.

In years in which no comprehensive Transmission Plan is issued as part of the regular biennial process, the CAISO may bring projects more urgently needed to address reliability issues to the CAISO Governing Board, following the process described in Section 24.3.3.1. According to the schedule set forth in the Business Practice Manual, transmission upgrades and additions with capital costs of \$50 million or less can be approved by CAISO management and Subscriber Participating TO transmission facilities,



provided the CAISO Governing Board has already approved the Subscriber Participating TO as a Participating TO or conditional Participating TO, may proceed to permitting and construction prior to Governing Board approval of the plan. Such CAISO management approved transmission solutions may be subject to a competitive solicitation process, consistent with Section 24.5, on an accelerated schedule that will allow the approved Project Sponsor to proceed to permitting and construction prior to Governing Board approval of the plan. CAISO management may also expedite approval of a transmission solution ahead of the approval schedule for other solutions with capital costs of \$50 million or less if: (1) there is an urgent need for approval of the solution ahead of the schedule established in the Business Practice Manual; (2) there is a high degree of certainty that approval of the upgrade or addition will not conflict with other solutions being considered in Phase 2; and (3) the need to accelerate a solution is driven by the CAISO's study process or by external circumstances. Should the CAISO find that a transmission solution with capital of \$50 million or less is needed on an expedited basis, after a stakeholder consultation process, CAISO management shall brief the Governing Board at a regularly-scheduled or special public session prior to approving the solution and conducting the competitive solicitation, if appropriate. A Participating Transmission Owner will have the responsibility to construct, own, finance and maintain any Local Transmission Facility deemed needed under this section 24 that is located entirely within such Participating Transmission Owner's PTO Service Territory or footprint. The provisions of Section 24.5 will apply to a Regional Transmission Facility deemed needed under this section 24. Section 24.5 will also apply to any transmission upgrades or additions that are associated with both Regional Transmission Facilities and Local Transmission Facilities but for which the CAISO determines that it is not reasonable to divide construction responsibility among multiple Project Sponsors. Construction and ownership of a selected Interregional Transmission Project shall be determined in accordance in Section 24.17.3.

## **24.5 Transmission Planning Process Phase 3**

### **24.5.1 Competitive Solicitation Process**

According to the schedule set forth in the Business Practice Manual, in the month following the CAISO Governing Board's approval of the comprehensive Transmission Plan, or a supplemental assessment to the final comprehensive Transmission Plan, whichever is applicable, the CAISO will initiate a period of at least ten (10) weeks that will provide an opportunity for Project Sponsors to submit specific proposals to

finance, own, and construct the Regional Transmission Facilities and any Long-Term Regional Transmission Facilities subject to competitive solicitation identified in the comprehensive Transmission Plan or supplemental assessment, interim reliability assessment, or Long-Term Regional Transmission Plan. If the transmission solution adopted in Phase 2 involves an upgrade or improvement to, addition on, or a replacement of a part of an existing Participating TO facility, the Participating TO will construct and own such upgrade, improvement, addition or replacement facilities unless a Project Sponsor and the Participating TO agree to a different arrangement. For Regional Transmission Facilities with capital costs of \$50 million or less that were approved by CAISO management before Governing Board approval of the comprehensive Transmission Plan, the ten week period will be initiated following management approval of the facility, and the Project Sponsor selection process may follow an accelerated schedule described in the Business Practice Manual. Such proposals must include plan of service details and supporting information as set forth in the Business Practice Manual sufficient to: (1) enable the CAISO to determine whether the Project Sponsor meets the qualification criteria specified in section 24.5.3.1; (2) enable the CAISO to determine whether a Project Sponsor's proposal meets the proposal qualification criteria in section 24.5.3.2; and (3) enable the CAISO, if there are multiple qualified Project Sponsors bidding on the same Regional Transmission Facility or Long-Term Regional Transmission Facility, to conduct a comparative analysis of the proposals and Project Sponsors and select an Approved Project Sponsor as described in section 24.5.3.5. The project proposal will identify the authorized governmental body from which the Project Sponsor will seek siting approval for the project.

Within 30 days after the CAISO posts the revised draft comprehensive Transmission Plan, ~~or a~~ supplemental assessment to the final comprehensive Transmission Plan, interim reliability assessment, or Long-Term Regional Transmission plan to its website, whichever is applicable, for each Regional Transmission Facility or Long-Term Regional Transmission Facility identified in the ~~revised draft comprehensive Transmission Plan or supplemental~~ applicable plan or assessment that is subject to competitive solicitation, the CAISO will post, for informational purposes only, those existing qualification criteria and selection factors, in addition to any binding cost containment commitments, which the CAISO believes are key for purposes of selecting an Approved Project Sponsor for the particular transmission solution, consistent with the comparative analysis described in section 24.5.4 and the project sponsor

qualification and selection criteria specified in sections 24.5.3.1 and 24.5.4, respectively. The posting of such key criteria is solely intended to provide information to Project Sponsors to assist them in the preparation of their applications and to highlight specific topics to which particular attention should be paid in the application given their importance in connection with a particular Regional Transmission Facility or Long-Term Regional Transmission Facility. The posting of the key selection criteria is not a replacement or substitute for the qualification and selection criteria set forth in sections 24.5.3.1 and 24.5.4, and in its comparative analysis conducted in accordance with section 24.5.4, the CAISO is required to comparatively assess all of the qualification and selection criteria, not just those listed as key selection criteria. In its posting of the key selection criteria, the CAISO cannot add new or different criteria than those already specified in sections 24.5.3.1 and 24.5.4. To determine the key criteria for each transmission solution subject to competitive solicitation, the CAISO will consider: (1) the nature, scope and urgency of the need for the transmission solution; (2) expected severity of siting or permitting challenges; (3) the size of the transmission solution, potential financial risk associated with the transmission solution, expected capital cost magnitude, cost overrun likelihood and the ability of the Project Sponsor to contain costs; (4) the degree of permitting, rights-of-way, construction, operation and maintenance difficulty; (5) risks associated with the construction, operation and maintenance of the transmission solution ; (6) technical and engineering design difficulty or whether specific expertise in design or construction is required; (7) special circumstances or difficulty associated with topography, terrain or configuration; (8) specific facility technologies or materials associated with the transmission solution; (9) binding cost containment measures, including cost caps; (10) abandonment risk; and (11) whether the overall cost of the transmission solution impacts the CAISO's prior determination of, and inclusion in, the ~~comprehensive-applicable Transmission-transmission Plan-plan~~ of the more efficient or cost effective solution during Phase 2 of the transmission planning process or in the Long-Term Regional Transmission Planning process.

The posting of the key selection criteria shall not undermine the CAISO's prior determination in Phase 2 of the transmission planning process or the Long-Term Regional Transmission Planning process of the more efficient or cost-effective transmission solution to be reflected in the comprehensive Transmission Plan or the Long-Term Regional Transmission Plan, nor shall the posting of the key criteria replace or be

inconsistent with the CAISO's obligation under section 24.5.4 to undertake a comparative analysis of each Project Sponsor with respect to each Project Sponsor qualification and selection criterion. If the CAISO determines in Phase 2 of the transmission planning process or in the Long-Term Regional Transmission Planning process that more than one transmission solution could constitute the more efficient or cost-effective solution to meet a specific identified need depending on the outcome of the competitive solicitation, the CAISO shall have the authority to identify more than one potential transmission solution in the comprehensive Transmission Plan or in the Long-Term Regional Transmission Plan. Under those circumstances, based on the outcome of the competitive solicitation, the CAISO will make the final determination of which alternative transmission solution identified in the Board-approved comprehensive Transmission Plan or the Long-Term Regional Transmission Plan constitutes the more efficient or cost-effective transmission solution to be selected for construction.

#### **24.5.2 Project Sponsor Application and Information Requirements**

All project sponsors must submit a Project Sponsor application form as set forth in the Business Practice Manual and posted on the CAISO website. Any entity may submit a Project Sponsor application to finance, construct, own, operate and maintain a transmission solution identified in the comprehensive applicable Transmission-transmission Planplan or assessment subject to the competitive solicitation process. There is no requirement that a Project Sponsor first be qualified before it may submit a Project Sponsor application for such a transmission solution.

##### **24.5.2.1 Opportunity for Collaboration**

Any entity interested in collaborating with another entity may notify the CAISO of such interest within two weeks after the CAISO opens the competitive solicitation window for a specified Regional Transmission Facility or Long-Term Regional Transmission Facility. The CAISO will post a list of entities interested in collaborating and their contact information on the CAISO website. Prior notice to the CAISO is not a prerequisite for a Project Sponsor to submit an application, including a joint application, to finance, own, construct, operate, and maintain a Regional Transmission Facility or Long-Term Regional Transmission Facility under Section 24.5. All Project Sponsors, including collaborating Project Sponsors, must submit an application prior to the close of the competitive solicitation window.

##### **24.5.2.2**

A Project Sponsor will provide to the CAISO, Participating TOs (as listed on Appendix F to the Transmission Control Agreement), and Approved Project Sponsors a copy of all initial filings it submits in a FERC docket that affect the rates (including the Transmission Revenue Requirement), terms, or conditions of service for any Regional Transmission Facility or Long-Term Regional Transmission Facility that is the subject of an ongoing competitive solicitation process under this section 24.5. The Project Sponsor will provide such copy either via email or first class U.S. mail on the same day it makes the filing with FERC; provided that if the copy is sent via U.S. mail, the Project Sponsor will satisfy the requirement if it places the copy in the mail on the date of filing. The CAISO will post the contact information for Approved Project Sponsors on the CAISO website.

#### **24.5.2.3 Project Sponsor Information Requirements**

The application to be submitted to the CAISO by an entity desiring to become an Approved Project Sponsor shall include the following general information (as well as related details) in response to the questions on the application form:

- (a) The following information:
  - (i) A proposed financial plan demonstrating that adequate capital resources are available to the Project Sponsor to finance the transmission solution, and that constructing, operating and maintaining the facilities will not significantly impair the Project Sponsor's creditworthiness or financial condition;
  - (ii) A showing from the Project Sponsor's most recent audited financial statements that the Project Sponsor's assets are in excess of liabilities as a percentage of the total cost of the transmission solution;
  - (iii) Financial funding ratios from the most recent audited financial statements;
  - (iv) Credit arrangements between affiliated entities, including corporate parent, and compliance with regulatory restrictions and requirements; and
  - (v) Bankruptcy, dissolution, merger or acquisition history;
- (b) The credit rating from Moody's Investor Services and Standard & Poors of the Project Sponsor, or its parent company, controlling shareholder, or any other entity providing a bond guaranty or corporate commitment to the Project Sponsor;

- (c) Information showing the Project Sponsor's ability to assume liability for major losses resulting from failure of, or damage to, the transmission facility, including damage after the facility has been placed into operation;
- (d) The project in-service date of each transmission solution with a construction plan and timetable;
- (e) A description of the Project Sponsor's proposed engineering, construction, maintenance and management teams, including relevant capability and experience;
- (f) A description of the Project Sponsor's resources for operating and maintaining the transmission solution after it is placed in-service;
- (g) A discussion of the capability and experience of the Project Sponsor that would enable it to comply with all on-going scheduling, operating, and maintenance activities required for each transmission solution, including those required by the tariff, business practice manuals, policies, rules, guidelines, and procedures established by the CAISO;
- (h) Resumes for all key management personnel, including contractors, that will be involved in obtaining siting approval and other required regulatory approvals and for constructing, operating and maintaining each transmission solution;
- (i) A description of the Project Sponsor's business practices that demonstrate consistency with Good Utility Practice for proper licensing, designing and right-of-way acquisition for constructing, operating and maintaining transmission solutions that will become part of the CAISO Controlled Grid;
- (j) The Project Sponsor's previous record regarding construction, operation and maintenance of transmission facilities within and outside the CAISO Controlled Grid;
- (k) The Project Sponsor's pre-existing procedures and practices for acquiring and managing right of way and other land for transmission facility, or, in the absence of preexisting procedures or practices, a detailed description of its plan for right of way and other land acquisition;
- (l) A description of existing rights of way or substations upon which all or a portion of the transmission facility can be located and incremental costs, if any, that would be incurred

in connection with placing new or additional facilities associated with the transmission solution on such existing rights of way;

- (m) The Project Sponsor's preexisting practices or procedures for mitigating the impact of the transmission solution on affected landowners and for addressing public concerns regarding facilities associated with the transmission solution. In the absence of such preexisting practices or procedures, the Project Sponsor shall provide a detailed plan for mitigating such impacts and addressing public concerns;
- (n) A description of the following and any related or relevant information regarding:
  - (i) the proposed structure and composition, conductor size and type;
  - (ii) the proposed route and rights of way; and
  - (iii) a plan for topography issues;
- (o) Cost containment capabilities and cost cap, if any;
- (p) Description of the Project Sponsor's plan for complying with standardized maintenance and operation practices and all applicable reliability standards;
- (q) Any other strengths and advantages that the Project Sponsor and its team may have to build and own the transmission solution, as well as any specific efficiencies or benefits demonstrated in its Project Sponsor proposal, including the potential use of alternative transmission technologies; and
- (r) The authorized government body from which the Project Sponsor will seek siting approval for the transmission solution and the authority of the selected siting authority to impose binding cost caps or cost containment measures on the Project Sponsor, as well as its history of imposing such measures.

Additional details about the information that must be submitted is set forth in the Business Practice Manual and on the application form. On the CAISO's request, the Project Sponsor will provide additional information that the CAISO reasonably determines is necessary to conduct its qualification and selection evaluation with respect to the particular transmission solutions that are subject to competitive solicitation.

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### **24.5.3 Project Sponsor and Proposal Qualifications**

#### **24.5.3.1 Project Sponsor Qualifications**

After posting the list of information-sufficient applications and, if applicable, after the conclusion of any applicable collaboration process under Section 24.5.2.2, the CAISO will evaluate the information submitted by each Project Sponsor in response to the questions on the application pertaining to sections 24.5.2.1(a)-(i) to determine whether the Project Sponsor has demonstrated that its team is physically, technically, and financially capable of (i) completing the needed transmission solution in a timely and competent manner; and (ii) operating and maintaining the transmission solution in a manner that is consistent with Good Utility Practice and applicable reliability criteria for the life of the project, based on the following qualification criteria:

- (a) whether the Project Sponsor has demonstrated that it has assembled, or has a plan to assemble, a sufficiently-sized team with the manpower, equipment, knowledge and skill required to undertake the design, construction, operation and maintenance of the transmission solution;
- (b) whether the Project Sponsor and its team have demonstrated that they have sufficient financial resources, by providing information including, but not limited to, satisfactory credit ratings, audited financial statements, or other financial indicators;
- (c) whether the Project Sponsor and its team have demonstrated the ability to assume liability for major losses resulting from failure of any part of the facilities associated with the transmission solution by providing information such as letters of credit, letters of interest from financial institutions regarding financial commitment to support the Project Sponsor, insurance policies or the ability to obtain insurance to cover such losses, the use of account set asides or accumulated funds, the revenues earned from the transmission solution, sufficient credit ratings, contingency financing, or other evidence showing sufficient financial ability to cover these losses in the normal course of business;
- (d) whether the Project Sponsor has (1) proposed a schedule for development and completion of the transmission solution consistent with need date identified by the



CAISO; and (2) has the ability to meet that schedule;

- (e) whether the Project Sponsor and its team have the necessary technical and engineering qualifications and experience to undertake the design, construction, operation and maintenance of the transmission solution;
- (f) whether the Project Sponsor makes a commitment to become a Participating TO for the purpose of turning the Regional Transmission Facility or Long-Term Regional Transmission Facility that the Project Sponsor is selected to construct and own as a result of the competitive solicitation process over to the ISO's Operational Control , to enter into the Transmission Control Agreement with respect to the transmission solution, to adhere to all Applicable Reliability Criteria and to comply with NERC registration requirements and NERC and WECC standards, where applicable.

If the CAISO determines that a Project Sponsor meets these criteria, it shall be deemed a qualified Project Sponsor.

#### **24.5.3.2 Proposal Qualification**

After evaluating the Project Sponsor's qualifications as described in section 24.5.3.1, the ISO will determine whether the transmission solution proposed by a Project Sponsor is qualified for consideration, based on the following criteria:

- (a) Whether the proposed design of the transmission solution is consistent with needs identified in the ~~comprehensive applicable Transmission transmission Planplan~~;
- (b) Whether the proposed design of the transmission solution satisfies Applicable Reliability Criteria and CAISO Planning Standards;

\* \* \* \* \*

#### **24.8.5 Obligation to Provide Updated Information**

If material changes to the information provided under Sections 24.8 occur during the ~~biennial~~annual Transmission Planning Process, the providers of the information must provide notice to the CAISO of the changes.

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#### **24.11 ~~[Not Used]~~ Long-Term Planning**

As part of the regional transmission planning process, the CAISO shall conduct Long-Term Regional Transmission Planning. The CAISO will commence a Long-Term Regional Transmission Planning cycle every four years and will determine whether to select any facilities no later than three years from the date when each Long-Term Regional Transmission Planning cycle began. In accordance with the specific schedule outlined in the Business Practice Manual, the CAISO generally will, in year one, develop the scenarios, in years two and three, evaluate the scenarios, and in year three determine whether to select any facilities. The Long-Term Regional Transmission Planning process shall, at a minimum:

- (a) Utilize a base case consistent with the base case developed for the comprehensive Transmission Planning Process as one of the Long-Term Scenarios, which the CAISO determines is the most likely scenario to occur.
- (b) Reflect a planning horizon covering a minimum of twenty (20) years.
- (c) Identify Long-Term Regional Transmission Needs and Long-Term Regional Transmission Facilities to meet those needs through the development of Long-Term Scenarios.
- (d) Develop and use a minimum of three Long-Term Scenarios utilizing factors in the categories of factors to consider in consultation with stakeholders.
- (e) Disclose the methodology, criteria, assumptions, data and other information that underlie transmission plans, including Long-Term Scenarios.
- (f) Measure the required seven benefits and use those measured benefits to evaluate Long-Term Regional Transmission Facilities.
- (g) Use selection criteria that provide the opportunity for CAISO to select Long-Term Regional Transmission Facilities in the regional transmission plan for purposes of cost allocation that more efficiently or cost-effectively address Long-Term Regional Transmission Needs.
- (h) Allow incumbent and nonincumbent transmission developers to utilize the regional cost

allocation methodology outlined in Section 24.14.

- (i) Provide an opportunity for Relevant State Entities and interconnection customers to voluntarily fund any projects not selected.
- (j) Provide an opportunity for Interregional Transmission Projects submitted to the CAISO as a Relevant Planning Region to be evaluated as potential solutions to CAISO Long-Term Regional Transmission Needs pursuant to Section 24.18.

#### **24.11.1 ~~[Not Used]~~ Development of Long-Term Scenarios**

##### **24.11.1.1 Input Factor Categories**

The CAISO will identify and use factors in the following categories to determine the assumptions that will be used in the development of Long-Term Scenarios:

- (a) Federal, federally-recognized Tribal, state, and local laws and regulations affecting the resource mix and demand.
- (b) Federal, federally-recognized Tribal, state, and local laws and regulations on decarbonization and electrification.
- (c) State-approved integrated resource plans and expected supply obligations for load-serving entities.
- (d) Trends in fuel costs and in the cost, performance, and availability of generation, electric storage resources, and building and transportation electrification technologies.
- (e) Resource retirements, including likely resource retirements beyond those that have been publicly announced.
- (f) Generator interconnection requests and withdrawals.
- (g) Utility commitments and federal, federally-recognized Tribal, state, and local policy goals that affect Long-Term Regional Transmission Needs.

##### **24.11.1.2 Accounting for Factors**

In the development of the Long-Term Scenarios, the CAISO will account for the factors that it has determined are likely to affect Long-Term Regional Transmission Needs and will make a determination as to how that factor is likely to affect Long-Term Regional Transmission Needs.

The CAISO will use each factor individually or collectively to determine the assumptions that will be used in the development of the Long-Term Scenarios that will result in plausible and diverse Long-Term Scenarios. In developing the Long-Term Scenarios, the CAISO may generalize how all of the discrete factors in a single category of factors will, in aggregate, affect the development of the Long-Term Scenarios. The CAISO will only utilize factors which it determines are likely to have a measurable effect on Long-Term Regional Transmission Needs. Where factors may have overlapping effects on the planning assumptions, the CAISO will avoid double counting the effect that those factors have on assumptions used to develop Long-Term Scenarios. Where there is overlap between categories (a)-(c) and (d)-(g), or a factor could be considered in a category in the first three or the second four, the CAISO will consider it in the appropriate category (a)-(c).

For categories of factors listed in 24.11.1.1(a)-(c), the CAISO will assume that legally binding obligations are followed, state-approved integrated resource plans are followed, and expected supply obligations for load-serving entities are fully met. The CAISO will account for and be consistent with, and not discount, factors in the first three categories. When the CAISO determines that a factor that is based on state's law, regulation, or policy, is likely to affect needs, the CAISO will rely on the state in determining how to account for such a state-related factor.

For categories of factors listed in 24.11.1.1(d)-(g) the CAISO will use discretion in how to account for each factor and may put more weight on the factor by modeling more than the projected change in some or all Long-Term Scenarios to reflect the CAISO's view regarding the likelihood that the anticipated effects on Long-Term Regional Transmission Needs due to that factor will occur.

#### **24.11.1.3 Stakeholder Input – Factors to be Used in Long-Term Scenarios**

- (a) In accordance with the schedule set forth in the Business Practice Manual, the CAISO will provide stakeholders, states, and federally-recognized Tribes with a meaningful opportunity to propose factors for consideration, provide information and identify sources of best available data, propose how a factor may affect Long-Term Regional Transmission Needs, and explain how that factor could be reflected in the development of Long-Term Scenarios, including the extent to which it is appropriate to discount the effects of certain factors on Long-Term Regional Transmission Needs. The CAISO will

provide a comment period of at least four weeks during which stakeholders, states, and federally-recognized Tribes may submit proposals for consideration in the development of the factors under the categories of factors included in Section 24.11.1.2. Stakeholders, states, and federally-recognized Tribes may also propose which future outcomes are probable and can be captured through assumptions made in the development of Long-Term Scenarios.

(b) Following review of relevant information, including comments submitted pursuant to Section 24.11.1.3(a), the CAISO will prepare and post on the CAISO Website a draft of the factors to be used in the development of the Long-Term Scenarios and a description of how they will be utilized. The CAISO will issue a Market Notice announcing the availability of such draft, soliciting comments, and scheduling a public conference(s) as required by Section 24.11.1.3(c).

(c) No less than one (1) week subsequent to the posting of the draft factors, the CAISO will conduct a minimum of one (1) public meeting open to all to review, discuss, and recommend modifications to the draft factors. Additional meetings, web conferences, or teleconferences may be scheduled as needed. All stakeholder meetings, web conferences, or teleconferences shall be noticed by Market Notice.

(d) Interested parties will be provided a minimum of two (2) weeks following the first public meeting to provide additional comments on the draft factors. All comments on the draft factors will be posted by the CAISO to the CAISO Website.

(e) The CAISO will determine and publish to the CAISO Website the final factors pursuant to Section 24.11.1.4 and how the CAISO will account for each specific factor in accordance with the procedures set forth in the Business Practice Manual.

#### **24.11.1.4 Posting of Factors**

Following the public meeting(s) described in Section 24.11.1.3, and under the schedule set forth in the Business Practice Manual, the CAISO will publish on CAISO Website: (1) the list of factors in each of the seven required categories the CAISO will account for in each of its Long-Term Scenarios; (2) a description of each factor the CAISO will account for; (3) a general statement explaining how the CAISO

will account for each of those factors; (4) a description of the extent to which the CAISO will discount any factors in factor categories (d)-(g) in any of the Long-Term Scenarios; and (5) list of factors the CAISO considered but did not incorporate. These factors will inform the study plan applicable to the Long-Term Transmission Planning process cycle. The study plan, to the extent the CAISO chooses to issue a separate study plan for the Long-Term Transmission Planning process in any cycle, will additionally include the requirements identified in Section 24.3.2 to the extent applicable to conducting the Long-Term Transmission Planning process.

#### **24.11.1.5 Specificity of Data Inputs**

The CAISO will use best available data inputs that correspond to the factors likely to affect Long-Term Regional Transmission Needs and when developing Long-Term Scenarios. Such data inputs are timely, developed using best practices and diverse and expert perspectives, and adopted in consultation with stakeholders under Section 24.11.1.3. Data inputs will be updated, as necessary, each time the CAISO reassesses and revises its Long-Term Scenarios.

The CAISO will publicly disclose, subject to any applicable confidentiality protections, information and data inputs that the CAISO will use to create each Long-Term Scenario.

#### **24.11.1.6 Sensitivities for High-Impact, Low-Frequency Events**

The CAISO will develop at least one sensitivity, applied to each Long-Term Scenario when performing the evaluation assessments, to account for uncertain operational outcomes that determine the benefits of and/or need for transmission facilities during multiple concurrent and sustained generation and/or transmission Outages due to an extreme weather event across a wide area.

The CAISO may develop additional sensitivities to account for other high-impact, low frequency events as the CAISO deems necessary.

#### **24.11.2 ~~[Not Used]~~ Measurement of Benefits**

The CAISO's Long-Term Regional Transmission Plan will measure and use the following seven benefits for any transmission projects identified by the CAISO, for use in the evaluation of Long-Term Scenarios as described in Section 24.11.3. The CAISO will calculate the benefits of Long-Term Regional Transmission Facilities over a time horizon that covers, at a minimum, 20 years starting from the estimated in-service date of the transmission facilities. In the case that the CAISO estimates the costs

of any Long-Term Regional Transmission Facility beyond the in-service date of the transmission facilities, the CAISO will estimate those future costs over the same time horizon as the estimated benefits. The seven benefits to be measured and used are:

1. Reduced costs of avoided or delayed transmission investment otherwise required to address reliability needs or replace aging transmission facilities. The CAISO will measure this benefit as the reduction in investment costs due to avoided or deferred reliability transmission facilities and aging infrastructure.
2. Either (a) reduced loss of load probability, defined as the reduced frequency of loss of load events by providing additional pathways for connecting generation resources with load (if planning reserve margin is constant), or (b) reduced planning reserve margin (PRM), defined as a benefit of reduced capital cost of generation needed to meet resource adequacy requirements while holding loss of load probabilities constant. The CAISO will measure this benefit as either the reduction in frequency of loss of load events or the reduction in planning reserve margins while holding loss of load probabilities constant. The CAISO will determine which approach will be measured during the Long-Term Regional Planning process consistent with its Long-Term Regional Transmission Need(s), but will not measure both simultaneously.
3. Reduction in production costs, including savings in fuel and other variable operating costs of power generation, that are realized when transmission facilities allow for the increased dispatch of suppliers that have lower incremental costs of production, displacing higher-cost supplies as well as reduction in market prices as lower-cost suppliers set market clearing prices. The CAISO will measure this benefit as the reduction in production costs using production cost modeling simulations.
4. Reduced total energy necessary to meet demand stemming from reduced energy losses incurred in transmittal of power from generation to loads. The CAISO will measure this benefit as the reduction in the amount of total energy and transmission energy losses incurred in transmittal of power from generation to loads using production cost modeling simulations.

5. Reduced production costs during transmission Outages that significantly increase transmission congestion. The CAISO will measure this benefit as the reduction in congestion costs during transmission outages that significantly increase transmission congestion using production cost modeling simulations.
6. Reduced production costs and reduced loss of load (or emergency procurements necessary to support the system), including due to increased Interregional Transfer Capability, during extreme weather events and unexpected system conditions, such as unusual weather conditions or fuel shortages that result in multiple concurrent and sustained generation and/or transmission outages. The CAISO will account for circumstances that contribute to these events that are specific to the CAISO planning region. The CAISO will measure this benefit as reduced production costs, and loss of load, and increase in interregional transfer capability during extreme weather events and unexpected system conditions. The CAISO will account for mitigation of unexpected system conditions during periods when transmission facilities have particularly high value, not only during extreme weather events.
7. Reduced energy losses during peak load reduces generation capacity investment needed to meet the peak load and transmission losses. The CAISO will measure this benefit as reduction in generation capacity investment due to reduced energy losses during peak load.

#### **24.11.3 ~~[Not Used]~~ Evaluation of Long-Term Scenarios**

The CAISO's evaluation process and selection criteria aim to ensure the more efficient or cost-effective Long-Term Regional Transmission Facilities are selected to address needs. The CAISO will identify one or more transmission facilities that addresses each identified need.

In accordance with the study plan and with the procedures and schedules in the Business Practice Manual, the CAISO will perform assessments necessary to evaluate scenarios and sensitivities developed in accordance with section 24.11.1 for its Long-Term Regional Transmission Plan and determine the need for Long Term Regional Transmission Facilities. According to the schedule set forth in the applicable Business Practice Manual, the CAISO will post the preliminary results of its assessments



on the CAISO Website. The CAISO's preliminary assessment results shall be posted not less than one-hundred and twenty (120) days after the factors are published.

Determination of transmission solutions to be included in the Long-Term Regional Transmission Plan will be based on the CAISO's assessments, consideration of potential transmission solutions and non-transmission or generation alternatives proposed by stakeholders, coordination with Participating Transmission Owners including identifying opportunities for right-sizing replacement transmission facilities in accordance with section 24.11.3.2, measurement of benefits in accordance with section 24.11.2 and selection criteria in accordance with section 24.11.3.3.

#### **24.11.3.1 Stakeholder Proposals for Transmission Solutions**

As part of the CAISO's Long-Term Regional Transmission Planning evaluation process and in accordance with the schedule set forth in the applicable Business Practice Manual, nonincumbent developers will be given the opportunity to propose transmission facilities following the publication of the CAISO's preliminary assessment results on the CAISO Website in accordance with section 24.11.3.

#### **24.11.3.2 Opportunities to Right-Size Replacement Transmission Facilities**

As part of the Long-Term Regional Transmission Planning evaluation process, the CAISO will evaluate whether facilities (1) operating at or above 200 kV, and (2) that the Participating Transmission Owner that owns the facility anticipates replacing in-kind with a new transmission facility during the next ten years can be "right-sized" to more efficiently or cost-effectively address a Long-Term Transmission Need. The CAISO and Participating TOs will coordinate on any such existing facilities following the publication of the CAISO's preliminary assessment results on the CAISO website in accordance with section 24.11.3. Any proposed Right-Sized Replacement Transmission Facility will be evaluated in the same manner as any other proposed Long-Term Regional Transmission Facility.

#### **24.11.3.3 Selection Criteria**

The CAISO will use selection criteria to guide its determination of whether to select any facilities in the Long-Term Regionally Transmission Planning process for development. The CAISO will perform the evaluation with the aim to ensure that more efficient or cost-effective transmission facilities are selected in the regional transmission plan for purposes of cost allocation and while seeking to maximize benefits accounting for costs over time without over-building transmission facilities. The CAISO will identify at

least one facility to meet each need, but is not required to select any facility. In order for the CAISO to consider a facility for selection the facility must:

- (a) have measurable benefits across the multiple of the seven categories of benefits in at least one scenario in accordance with section 24.11.2; and
- (b) have a BCR of 1.00 or higher in at least one scenario.

The CAISO may select a transmission facility under its Long-Term Regional Transmission Planning process if the facility is net beneficial in more than one Long-Term Scenario and sensitivity analyses even if other transmission facilities have a higher benefit-cost ratio or provide more net benefits in a single Long-Term Scenario or particular sensitivity.

#### **24.11.4 Selection of Long-Term Regional Facilities and Conclusion of Long-Term Planning Cycle**

No later than three years following the beginning of the planning cycle and in accordance with the schedule set forth in the applicable Business Practice Manual, the CAISO will determine whether to select or not select identified facilities based on the selection criteria in Section 24.11.3. Such selection will take place only after proposals submitted pursuant to Section 24.11.3.1 and 24.11.3.2 are considered. The CAISO will post on the CAISO Website the specific determinations explaining why each identified facility was or was not selected. Simultaneous with the posting of the final determinations, the CAISO will include in a Market Notice a notice triggering the start of the voluntary funding opportunity open window, consistent with Section 24.11.5.1. The conclusion of that open window and, if applicable, the memorialization of any proposal for voluntary funding will conclude the Long-Term Regional Transmission Planning cycle.

With the exception of Right-Sized Replacement Transmission Facilities which will be subject to a federal right of first refusal, Long-Term Regional Transmission Facilities will be eligible for competitive solicitation. Consistent with the alignment schedule, projects eligible for competitive solicitation will go through the Phase 3 process in Section 24.5.

#### **24.11.5 Cost Allocation for Long-Term Regional Transmission Solutions**

Cost responsibility for transmission additions or upgrades selected in the Long-Term Regional Transmission Planning process will be determined pursuant to Section 24.14. Transmission developers

selected, whether incumbent or nonincumbent, will be eligible to use the applicable cost allocation method.

#### **24.11.5.1 Voluntary Funding Opportunity**

Relevant State Entities and Interconnection Customers will have the opportunity to voluntarily fund the cost of, or a portion of the cost of, a Long-Term Regional Transmission Facility that otherwise would not meet the CAISO's selection criteria. After the final selection of facilities is published pursuant to 24.11.4, entities interested in pursuing a voluntary funding opportunity may propose to the CAISO a framework for a specific facility during the two months following notice. The CAISO will evaluate whether the proposal reduces the cost of the facility to CAISO ratepayers and eliminates other deficiencies in the CAISO's original benefits evaluation in order to meet the selection criteria identified in Section 24.11.3.3. To the extent that the proposal allows the facility to meet the selection criteria, the CAISO may, but is not required to, move forward with seeking CAISO Governing Board approval for any such project and proposal.

In order to move forward, the voluntary funding proposal must mitigate all operational concerns identified by the CAISO to the satisfaction of the CAISO. To ensure that the funding parties are financially able to pay the construction and operating costs of the facility, the CAISO may require (1) a demonstration of creditworthiness (e.g., an appropriate credit rating), or (2) sufficient security in the form of an unconditional and irrevocable letter of credit or other similar security sufficient to meet its responsibilities and obligations for the proposed partial or full costs of the facility.

The CAISO and the funding parties will memorialize the proposal through the execution of an agreement between the CAISO and the funding parties. Pursuing voluntary funding does not automatically confer any particular rights or preferences to the funding parties beyond those awarded to a Project Sponsor for a Merchant Transmission Facility pursuant to Section 24.14.3. Any such proposed rights must be included in any proposal for the CAISO to consider in its evaluation.

#### **24.11.6 Reevaluation of Selected Long-Term Transmission Facilities**

Under specific circumstances and utilizing the specific criteria outlined in Section 24.11.6, the CAISO will reevaluate specific facilities that were previously selected in the Long-Term Regional Transmission Planning cycle until the date at which substantial procurement must take place to meet the requested in-

service date for that particular facility, to be specifically memorialized in any Approved Project Sponsor Agreement or similar agreement, after which the facilities will no longer be subject to reevaluation.

#### **24.11.6.1      Reevaluation Triggering Circumstances and Criteria**

The CAISO will reevaluate Long-Term Regional Transmission Facilities that were previously selected when one of the following circumstances exists for a specific project:

- (a)      delays in the development of a previously selected Long-Term Regional Transmission Facility would jeopardize the CAISO's ability to meet its reliability needs or reliability-related service obligations;
- (b)      the actual or project costs of a previously selected Long-Term Regional Transmission Facility significantly exceed cost estimates used in the selection of the facility by 10% or more; or
- (c)      significant changes in federal, federally-recognized Tribal, state, or local laws or regulations cause reasonable concern that a previously selected facility may no longer meet the selection criteria.

In order to determine when one of these three situations occurs, thereby triggering the reevaluation, the CAISO will monitor the development activities of each Long-Term Regional Transmission Facility, including but not limited to, by requiring quarterly reports from developers of such facilities to determine if:

- (1)      the project is experiencing delays which will result in the inability to meet the requested in-service date, in which case the CAISO will evaluate whether this delay jeopardizes the CAISO's ability to meet reliability needs or reliability-related service obligations prior to triggering a reevaluation; or
- (2)      actual or projected costs exceed estimated costs by 20%; or
- (3)      the CAISO becomes aware of a significant change in federal, federally-recognized Tribal, state, or local laws or regulations, in which case the CAISO will evaluate whether such change in law or regulation causes reasonable concern that a previously selected facility may no longer meet the selection criteria prior to triggering a reevaluation.

The CAISO will not reevaluate any selected facility on basis of significant changes in laws or regulations unless during the planning cycle in which the facility was selected, the facility's targeted in-service date

was in the latter half of the 20-year planning horizon.

#### **24.11.6.2 Process for Reevaluation**

Consistent with Long-Term Regional Transmission Planning evaluation, the reevaluation will seek to maximize benefits accounting for costs over time without over-building transmission facilities.

Reevaluation on the basis of project delays, cost increases or significant changes in laws or regulations will be part of a subsequent cycle and will take into account not only any updated costs of the facility but also updated benefits. Depending on the degree to which the project no longer meets the selection criteria or delays are due to the transmission developer, the CAISO may impose a mitigation plan, reassign the project, modify the facility, or remove the facility from the plan. If the CAISO finds that the project continues to meet selection criteria and any delays do not have a significant impact on meeting identified Long-Term Needs, the CAISO will take no action.

\* \* \* \* \*

#### **24.14 Cost Responsibility for Transmission Additions or Upgrades**

Cost responsibility for transmission additions or upgrades constructed pursuant to this Section 24 shall be determined ~~as follows:~~pursuant to this Section 24.14. To the extent that the CAISO seeks to change this methodology in the future as it relates to Long-Term Regional Transmission Facilities, the CAISO will consult with Relevant State Entities prior to amending the cost responsibility methodology. For consultation initiated by the CAISO, the CAISO will document publicly on the CAISO website the results of its consultation with Relevant State Entities prior to filing any amendment. Relevant State Entities may seek for the CAISO to amend this cost responsibility method as related to Long-Term Regional Transmission Facilities, in which case the CAISO will consult with such Relevant State Entities.

\* \* \* \* \*

#### **24.18 Order 1000 Common Interregional Tariff**

#### 24.18.1 Annual Interregional Information Exchange

Annually, prior to the Annual Interregional Coordination Meeting, the CAISO will make available by posting on its website or otherwise provide to each of the other Planning Regions the following information, to the extent such information is available in its regional transmission planning process, relating to regional transmission needs in the CAISO's transmission planning region and potential solutions thereto:

- (i) study plan or underlying information that would typically be included in a study plan, such as:
  - (a) identification of base cases;
  - (b) planning study assumptions; and
  - (c) study methodologies;
- (ii) initial study reports (or system assessments); ~~and~~
- (iii) regional transmission plan; and
- (iv) information regarding Long-Term Regional Transmission Needs:
  - (a) the Long-Term Regional Transmission Needs discussed in the interregional transmission coordination meetings;
  - (b) any interregional transmission facilities proposed or identified in response to Long-Term Regional Transmission Needs;
  - (c) the voltage level, estimated cost, and estimated in-service date of the interregional transmission facilities proposed or identified as part of Long-Term Regional Transmission Planning;
  - (d) the results of any cost-benefit evaluation of such interregional transmission facilities, with such results including both any overall benefits identified (which may occur across multiple transmission planning regions), as well as any benefits particular to each transmission planning region; and
  - (e) the interregional transmission facilities, if any, selected to meet Long-Term Regional Transmission Needs.

(collectively referred to as “Annual Interregional Information”).

The CAISO will post its Annual Interregional Information on its website according to its regional transmission planning process. Each other Planning Region may use in its regional transmission planning process the CAISO's Annual Interregional Information. The CAISO may use in its regional transmission planning process Annual Interregional Information provided by other Planning Regions. The CAISO is not required to make available or otherwise provide to any other Planning Region (i) any information not developed by the CAISO in the ordinary course of its regional transmission planning process, (ii) any Annual Interregional Information to be provided by any other Planning Region with respect to such other Planning Region, or (iii) any information if the CAISO reasonably determines that making such information available or otherwise providing such information would constitute a violation of the Commission's Standards of Conduct or any other legal requirement. Annual Interregional Information made available or otherwise provided by the CAISO shall be subject to applicable confidentiality and CEII restrictions and other applicable laws, under the CAISO's regional transmission planning process.

#### **24.18.2 Annual Interregional Coordination Meeting**

The CAISO will participate in an Annual Interregional Coordination Meeting with the other Planning Regions. The CAISO will host the Annual Interregional Coordination Meeting in turn with the other Planning Regions, and is to seek to convene such meeting in February, but not later than ~~March 31st~~June 30<sup>th</sup>. The Annual Interregional Coordination Meeting is to be open to stakeholders. The CAISO will provide notice of the meeting to its stakeholders in accordance with its regional transmission planning process.

At the Annual Interregional Coordination Meeting, topics discussed may include the following:

- (i) each Planning Region's most recent Annual Interregional Information (to the extent it is not confidential or protected by CEII or other legal restrictions);
- (ii) identification and preliminary discussion of interregional solutions, including conceptual solutions, that may meet regional transmission needs or Long-Term Regional Transmission Needs in each of two or more Planning Regions more cost effectively or efficiently; ~~and~~
- (iii) updates of the status of ITPs being evaluated or previously included in the CAISO's

comprehensive transmission plan; and

- (iv) information regarding respective Long-Term Regional Transmission Needs as well as Long-Term Regional Transmission Facilities to meet those needs.

\* \* \* \* \*

#### **24.18.3.2 Joint Evaluation of an Interregional Transmission Project**

For each Interregional Transmission Project that meets the requirements of Section 24.18.3.1, the CAISO (if it is a Relevant Planning Region) will participate in a joint evaluation by the Relevant Planning Regions that is to commence in the calendar year of the Interregional Transmission Project's submittal in accordance with Section 24.18.3.1, or the immediately following calendar year. With respect to any such Interregional Transmission Project, the CAISO (if it is a Relevant Planning Region) will confer with the other Relevant Planning Region(s) regarding the following:

- (i) Interregional Transmission Project data and projected Interregional Transmission Project costs; and
- (ii) the study assumptions and methodologies it is to use in evaluating the Interregional Transmission Project pursuant to its regional transmission planning process.

For each Interregional Transmission Project that meets the requirements of Section 24.18.3.1, the CAISO (if it is a Relevant Planning Region):

- (a) will seek to resolve any differences it has with the other Relevant Planning Regions relating to the Interregional Transmission Project or to information specific to other Relevant Planning Regions insofar as such differences may affect the CAISO's evaluation of the Interregional Transmission Project;
- (b) will provide stakeholders an opportunity to participate in the CAISO's activities under this Section 24.18.3.2 in accordance with its regional transmission planning process and the Long-Term Regional Transmission Planning process;
- (c) will notify the other Relevant Planning Regions if the CAISO determines that the Interregional Transmission Project will not meet any of its regional transmission needs or



Long-Term Regional Transmission Needs; thereafter the CAISO has no obligation under this Section 24.18.3.2 to participate in the joint evaluation of the Interregional Transmission Project; and

- (d) will determine under its regional transmission planning process if such Interregional Transmission Project is a more cost effective or efficient solution to one or more of the CAISO's regional transmission needs.

\* \* \* \* \*

## **Appendix A**

### **New Definitions**

#### **- Assumptions Meeting**

As part of the comprehensive Transmission Planning Process, a stakeholder meeting to review the criteria, assumptions, and models related to local and regional transmission planning.

#### **- In-Kind Replacement Transmission Facility**

For purposes of the right-sizing reform, a new transmission facility that: (1) would replace an existing transmission facility that the transmission provider has identified in its required 10-year in-kind replacement estimate as needing to be replaced; (2) would result in no more than incidental increase in capacity over the existing transmission facility identified as needed to be replaced; and (3) is located in the same general route as, and/or uses the existing rights-of-way of, the existing transmission facility identified as needing to be replaced.

#### **- Long-Term Regional Transmission Facility**

Regional transmission facility that is identified as part of Long-Term Regional Transmission Planning to address Long-Term Regional Transmission Needs.

#### **- Long-Term Regional Transmission Need(s)**

Transmission needs identified through Long-Term Regional Transmission Planning by, among other things, running scenarios and considering the enumerated categories of factors.

### **- Long-Term Regional Transmission Plan**

The report prepared by the CAISO, pursuant to Section 24, which documents the outcome of the Long-Term Regional Transmission Planning Process as defined in the Study Plan.

### **- Long-Term Regional Transmission Planning**

Regional transmission planning on a 20 year, forward-looking, and comprehensive basis to identify Long-Term Regional Transmission Needs, identify transmission facilities that meet such needs, measure the benefits of those transmission facilities, and evaluate those transmission facilities for potential selection in the regional transmission plan for purposes of cost allocation as the more efficient or cost-effective regional transmission facilities to meet Long-Term Regional Transmission Needs.

### **- Long-Term Scenarios**

Scenarios that incorporate various assumptions using best available data inputs about the future electric power system over a sufficiently long-term, forward-looking transmission planning horizon to identify Long-Term Regional Transmission Needs and enable the identification and evaluation of transmission facilities to meet such transmission needs.

### **- Needs Meeting**

As part of the comprehensive Transmission Planning Process a stakeholder meeting to review identified reliability criteria violations and other transmission needs that drive the need for local or regional transmission facilities.

### **- Relevant State Entity**

Any state entity responsible for electric utility regulation or siting electric transmission facilities within the state or portion of a state located in the transmission planning region, including any state entity as may be designated for that purpose by the law of such state.

### **- Right-Sized Replacement Transmission Facility**

A new transmission facility selected in the Long-Term Transmission Planning Process that (1) would meet the need to replace an existing transmission facility that a transmission provider has identified in its in-kind replacement estimate as one that it plans to replace with an In-Kind Replacement Transmission Facility while also addressing a long-term need; (2) results in more than incidental increase in the capacity of an existing transmission facility that a transmission provider has identified for

replacement in its in-kind replacement estimate; and (3) is located in the same general route as, and/or uses or expands the existing rights-of-way of the existing transmission facility that a transmission provider has identified for replacement in its in-kind replacement estimate.

#### **- Solutions Meeting**

As part of the comprehensive Transmission Planning Process, a stakeholder meeting to review potential solutions to reliability criteria violations and other transmission needs.

### **Changes to existing tariff definitions**

*Redlines represent proposed changes from existing Appendix A*

#### **- Regional Transmission Facility**

A transmission facility that is owned by a Participating TO or to which a Participating TO has an Entitlement that is represented by a Converted Right, that is under the CAISO Operational Control, and that is not (1) a Local Transmission Facility or a Location Constrained Resource Interconnection Facility, and supporting facilities, (2) a Long-Term Regional Transmission Facility, or (23) a Merchant Transmission Facility.

#### **- Study Plan**

The plan to be developed pursuant to Section 24.3.1, which sets forth the technical studies to be performed during the ~~annual~~-Transmission Planning Process.

#### **- Transmission Plan**

The report prepared by the CAISO on annual basis, or on a biennial basis (every two years) starting in 2028, pursuant to Section 24, which documents the outcome of the comprehensive Transmission Planning Process as defined in the Study Plan.

#### **- Unified Planning Assumptions**

The assumptions to be developed pursuant to Section 24.3.1 and used, to the maximum extent possible, in performing technical studies identified in the Study Plan as part of the ~~annual~~-Transmission Planning Process.