

**Comments of the Staff of the California Public Utilities Commission on the FRAC-MOO Revised Draft Tariff Language (July 15, 2014 Version)**

The Staff of the California Public Utilities (CPUC Staff) submits the following comments on the Second Revised Draft Tariff Language (July 15, 2014) for the CAISO's FRAC-MOO initiative. These comments consist of proposed edits to the latest version of the tariff with annotations to explain the reasons for Staff's proposed modifications. We "accepted" all prior edits to the existing tariff such that the changes reflect modifications to what we understand will be the CAISO's proposed tariff submitted to the Federal Energy Regulatory Commission.

Staff's proposed modifications address concerns raised in the CPUC Staff Comments to the initial Draft Tariff (May 27, 2014 version) that were not adequately addressed by the CAISO's subsequent modifications to the proposed tariff. These comments reflect proposed modifications that CPUC Staff informally provided to the CAISO via email on July 14, 2014 on the prior version of the revised draft tariff and discussed via conference call later that day. The CPUC Staff has now updated the prior set of comments submitted informally by transferring Staff's proposed modifications to the July 15, 2014 draft tariff language posted by the CAISO. Staff has proposed some further modifications to better address the CAISO's needs to ensure backstop procurement capability in the event of a collective deficiency in either the total amount of Flexible Capacity submitted or in a specific Flexible Capacity Category.

**40.10 Flexible RA Capacity**

**40.10.1 Flexible Capacity Needs Assessment**

The CAISO shall annually conduct a study to determine the Flexible Capacity Need of the CAISO Balancing Authority Area for each month of the next calendar year and provide the results of the study in the Flexible Capacity Needs Assessment.

**40.10.1.1 Process**

- (a) **Schedule.** The CAISO shall conduct the study pursuant to the schedule set forth in the Business Practice Manual, which shall include a process for stakeholders to review and provide input on the study methodology and assumptions and on the draft study results.
- (b) **Completion and Distribution.** The CAISO shall provide the final results of the Flexible Capacity Needs Assessment to each Local Regulatory Authority in the ISO Balancing Authority Area and post the Flexible Capacity Needs Assessment

on the CAISO Website no later than 120 days prior to the date that the annual Flexible RA Capacity Plans must be submitted under Section 40.

**40.10.1.2 Required Information From LSEs**

- (a) **Submission Requirement.** The Scheduling Coordinator for each Load Serving Entity in the CAISO Balancing Authority Area shall submit the information required by this Section, no later than January 15 each year, for use in the CAISO's study to generate minute-by-minute net-load data that will be used to determine the Maximum Three-Hour Net-Load Ramp for each month.
- (b) **Required Information.** The Scheduling Coordinator for each Load Serving Entity in the CAISO Balancing Authority Area must submit information that --
- (1) covers the calendar year in which the information is submitted and each year in the next five-year period;
  - (2) identifies each wind and solar resource connected to the CAISO Controlled Grid, and distributed wind and solar resources, that is owned, in whole or in part, by the Load Serving Entity, or under contractual commitment to the Load Serving Entity, for all or a portion of its capacity;
  - (3) indicates the status of the resource as either in service or in development with its expected commercial operation date;
  - (4) for each wind and solar resource, specifies the MWs of installed capacity, renewable energy area location, MWs of flexible capacity owned by or contractually committed to the Load Serving Entity, and other information required by the Business Practice Manual;

(5) describes the balancing services, if any, provided by another balancing authority area for a wind or solar resource that is located outside of the CAISO Balancing Authority Area and that is owned by or contractually committed to the Load Serving Entity; and

(6) forecasts the MW of installed, behind-the-meter solar capacity in the Load Serving Entity's service area.

(c) **Confidential Treatment.** The CAISO will treat the resource-specific information provided under Section 40.10.1.2(b) as confidential under Section 20.

(d) **Aggregated Information.** In addition to the required resource-specific information, the Scheduling Coordinator for each Load Serving Entity in the CAISO Balancing Authority Area shall submit the information required in Section 40.10.1.2(b) on an aggregated basis, as described in the Business Practice Manual, for inclusion in the Flexible Capacity Needs Assessment that will be posted on the CAISO Website.

#### **40.10.1.2.1 Incomplete or Inaccurate Information.**

(a) **Rerun of Study.** If the CAISO finds that a Load Serving Entity submitted incomplete or inaccurate information under Section 40.10.1.2(b), which was used in the calculation of the Flexible Capacity Need for the next calendar year, the CAISO may rerun its study using corrected information to recalculate Flexible Capacity Need for the entire year.

(b) **Criteria for Rerun.** The CAISO will not rerun its study to recalculate the Flexible Capacity Need unless the incomplete or inaccurate information represents a net

error in excess of either (i) 200 MW; or (ii) one percent of the total MWs of wind and solar capacity submitted under Section 40.10.1.2(b) for any month,

- (2) the CAISO has sufficient time to obtain corrected information and complete rerunning the study for the next calendar year by May 1.
- (c) **Revised Flexible Capacity Need** If the CAISO determines that the requirements in Sections 40.10.1.2.1(a) and (b) are met, the CAISO will recalculate the Flexible Capacity Need for the next calendar year and will no later than May 1 post a revised Flexible Capacity Needs Assessment on the CAISO Website.

#### **40.10.1.3 Methodology to Determine Flexible Capacity Need.**

The CAISO shall ~~conduct the study to~~ <sup>[CJM1]</sup> determine the Flexible Capacity Need for the system for each month of the next calendar year as follows:

- 1) forecast the minute-to-minute system load and net-load using actual load data, as adjusted for monthly peak load growth, and generation profiles for wind and solar resources that are in-service or expected to be in-service during the study period;
- 2) calculate the Maximum Three-Hour Net-Load Ramp for each month using the forecasted minute-to-minute system net-load;

3) determine the higher of the most severe single contingency or 3.5 percent of forecasted peak load for each month;

~~(4) may include a positive or negative forecast adjustment, calculated for each month as the difference between (i) the average amount of Operating Reserves met by Flexible RA Capacity and (ii) the greater of the most severe single contingency or 3.5 percent expected peak load; however, the adjustment cannot exceed the total amount of forecasted Operating Reserves for each month minus the greater of the most severe single contingency or 3.5 percent expected peak load. [CJM2]~~

(5) compute the resultant Flexible Capacity Need for each month based on the sum of the maximum three-hour net-load ramp, and the higher of the most severe single contingency or 3.5 percent of the forecasted monthly peak load; and

(6) may include a positive or negative forecast adjustment as follows:

(i) For the 2015 calendar year the forecast adjustment is zero.

(ii) For calendar years 2016 and beyond the CAISO will determine the need for a forecast adjustment in consultation with the CPUC and other Local Regulatory Authorities calculated for each month that shall not exceed the forecasted monthly peak Operating Reserves multiplied by the difference between (i) the historic percent of Operating Reserves met by Flexible RA Capacity and (ii) the percentage calculation that results from dividing the quantity determined in 40.10.1.3(3) by the forecasted monthly peak Operating Reserves. [CJM3]

#### **40.10.1.4 Methodology to Determine System-Wide Limits on Flexible**

##### **Capacity Categories.**

The CAISO shall calculate and publish in the Flexible Capacity Needs Assessment the total quantity system-wide of Flexible Capacity needed in each Flexible Capacity Category to ensure that forecast system operational needs can be met, based on the system ramping characteristics and calculated as follows: <sup>(CJM4)</sup>

(1) Base Ramping Resources. The minimum quantity of base ramping resources will be calculated as the change in MWs of the Secondary Three-Hour Net-Load Ramp for the season and specified in MW and as the percentage of total Flexible Capacity Needs.

(2) Peak Ramping Resources. The maximum quantity of base ramping resources will be calculated as the difference between the minimum quantity needed system-wide in the Flexible Capacity Category for Base Ramping Resources and the total Flexible Capacity Need and will be specified in MW and as the percentage of total Flexible Capacity Needs.

(3) Super-Peak Ramping Resources. The maximum quantity of super-peak ramping resources will be five percent of the total Flexible Capacity Need. <sup>(CJM5)</sup>

#### **40.10.2. Allocation of Flexible Capacity Need**

~~In addition to the Flexible Capacity Needs Assessment,~~ The CAISO will calculate each Local Regulatory Authority's allocable share of the total system Flexible Capacity Need,

and the contribution of each of the Local Regulatory Authority's jurisdictional Load Serving Entities to the Maximum Three-Hour Net-Load Ramp used to calculate its share of the total system Flexible Capacity Need. The CAISO shall provide **these calculations to each Local Regulatory Authority** no later than 120 days prior to the date that the annual Flexible RA Capacity Plans must be submitted under Section 40.

Nothing in this Section 40 obligates any Load Serving Entity to satisfy minimum or maximum capacity requirements in each Flexible Capacity Category identified in the Flexible Capacity Needs Assessment. However, if the Flexible Capacity Need adopted by all Local Regulatory Authorities, in total, do not fully allocate the total sum of the Flexible Capacity Need in each Flexible Capacity Category, then the CAISO may determine that a Collective Deficiency exists in a Flexible Capacity Category pursuant to Section 43.2.7(b) and allocate the costs for any Capacity Procurement Mechanism Designation according to Section 48.8. |CJM6|

#### **40.10.2.1 Calculation of LRA Allocations**

- (a) **Allocation of Maximum Three-Hour Net-Load Ramp.** The CAISO will calculate the Local Regulatory Authority's allocable share of the Flexible Capacity Need as the average of the sum of its jurisdictional Load Serving Entities' change in load, minus the change in wind output, minus the change in solar PV output, minus the change in solar thermal output during the five highest three-hour net-load changes in the month.
- (b) **Allocation of MSSC or Forecasted Peak Load.** The CAISO will determine the higher of the most severe single contingency or 3.5 percent of forecasted peak load for each Load Serving Entity based on the respective LSE's peak load ratio

share and calculate each Local Regulatory Authority's allocable share based on the sum of its jurisdictional Load Serving Entities' shares.

- (c) **Allocation of Forecast Adjustment.** If the CAISO includes a forecast adjustment in its **draft study results**, it will include an explanation of the cause and allocation of the changed need in its Flexible Capacity Needs Assessment for review as part of the stakeholder process under Section 40.10.1.1.

#### **40.10.2.2 Allocation to Load-Following MSS**

The CAISO will calculate the allocable share of the Flexible Capacity Need for each Load-following MSS in accordance with the provisions for Local Regulatory Authorities in Section 40.10.2. **The CAISO will deduct the Flexible Capacity Need allocated to each Load-following MSS from the calculation to determine whether a collective deficiency in Flexible RA Capacity exists under Section 43.2.7.**

#### **40.10.3 Flexible Capacity Categories**

##### ~~40.10.3.1 Flexible Capacity Category Calculation.~~

~~The CAISO shall calculate the minimum quantity of Flexible Capacity needed or the maximum quantity of Flexible Capacity allowed, as applicable, for each Flexible Capacity Category for each month of the next calendar year and provide the results in the Flexible Capacity Needs Assessment. [CIM7]~~

##### **40.10.3.2 Flexible Capacity Category-- Base Ramping Resources**

- ~~(a) **Minimum Quantity of Capacity Allowed.** The CAISO will identify the minimum quantity of Flexible Capacity needed in the base ramping category for each month, calculated on a seasonal basis, based on the system ramping~~



characteristics identified in the Flexible Capacity Needs Assessment and specifically the change in MWs of the Secondary Three-Hour Net-Load Ramp for the season. [CJM8]

- (b) **Resource Criteria.** Base Ramping Resources must meet all of the following criteria, except as provided in Sections 40.10.3.2(c) and (d) --
- (1) The resource must be capable of providing Flexible RA Capacity to the CAISO Markets through Economic Bids for Energy and Economic Bids for Ancillary Services that are not flagged as Contingency Only in the Day-Ahead Market, if and to the extent the resource is certified to provide Ancillary Services, submitted daily for the 17-hour period from 5:00 a.m. through 10:00 p.m.;
  - (2) The resource must be capable of providing Energy for a minimum of six hours up to its full Effective Flexible Capacity value including PMin;
  - (3) The resource must be capable of being available seven days a week;
  - (4) The resource must be able to provide the minimum of (i) two Start-Ups per day for every day of the month or sixty Start-Ups per month, or (ii) the number of Start-Ups allowed by its operational limits, including minimum up and minimum down time; and
  - (5) The resource must not have annual or monthly limitations on the number of Start-Ups or the amount of energy produced that, on a daily basis, are lower than the requirements in Section 40.10.3.2(b)(1) through (4).
- (c) **Use-Limited Resource**
- (1) A Use-Limited Resource may be included in this category if it meets the

criteria in Section 40.10.3.2(b).

- (2) A Load Serving Entity may include in this category a combined resource consisting of two Use-Limited Resources that do not individually meet the minimum operational and availability requirements but in combination meet the criteria in Section 40.10.3.2(b).
- (3) The Flexible RA Capacity amount for the combined resource will be **less than or equal to** the lowest Effective Flexible Capacity value shown on the Resource Flexible RA Capacity Plan for a resource in the combination.
- (4) Both resources in the combination shall be subject to the must-offer obligation up to their Flexible RA Capacity amounts.

- (d) **Non-Generator Resource.** A Non-Generator Resource that elects to provide Flexible RA Capacity may be included in this category if it meets the criteria in Section 40.10.3.2(b). A Non-Generator Resource that elects to provide Flexible RA Capacity and Regulation Energy Management is not eligible to be included in this category.

#### 40.10.3.3 Flexible Capacity Category -- Peak Ramping Resources

~~[CJM9] (a) **Maximum Quantity of Capacity Allowed.** The CAISO will identify the maximum quantity of Flexible Capacity allowed in the peak ramping category for each month, calculated on a seasonal basis, as the difference between the minimum quantity of Flexible Capacity needed in the base ramping category and the total Flexible Capacity Need.~~

- (b) **Resource Criteria.** Peak Ramping Resources must meet all of the following criteria, except as provided in Sections 40.10.3.3(c) and (d) --

- (1) The resource must be capable of providing Flexible RA Capacity to the CAISO Markets through Economic Bids for Energy and Economic Bids for Ancillary Services that are not flagged as Contingency Only in the Day-Ahead Market, if and to the extent the resource is certified to provide Ancillary Services, which must be submitted daily for a five-hour period to be determined by the CAISO on a seasonal basis;
  - (2) The resource must be capable of providing Energy for a minimum of three continuous hours up to its full Effective Flexible Capacity value including PMin;
  - (3) The resource must be capable of being available seven days a week.
  - (4) The resource must be capable of at least one Start-Up per day; and
  - (5) The resource must not have annual or monthly limitations on the number of unit Start-Ups or the amount of energy produced that, on a daily basis, are lower than the requirements in Section 40.10.3.3(b)(1) through (4).
- (c) **Use-Limited Resource.** A Use-Limited Resource may be included in this category if it meets the criteria in Section 40.10.3.3(b).
- (d) **Non-Generator Resource.** A Non-Generator Resource that elects to provide Flexible RA Capacity may be included in this category if it meets the criteria in Section 40.10.3.3(b). A Non-Generator Resource that elects to provide Flexible RA Capacity and Regulation Energy Management is not eligible to be included in this category.
- (e) **Base Ramping Resource.** A resource that meets the qualifications of the Flexible Capacity Category for Base Ramping Resources also qualifies to be

included in this category as a Peak Ramping Resource; however, a resource that meets only the qualifications of this category as a Peak Ramping Resource does not qualify as a Base Ramping Resource.

#### 40.10.3.4 Flexible Capacity Category -- Super-Peak Ramping Resources.

- (a) ~~Maximum Quantity of Capacity Allowed.~~ The CAISO will identify the maximum quantity of Flexible Capacity needed in the super-peak ramping category as five percent of the total Flexible Capacity Need for the month.<sup>[CJM10]</sup>
- (b) **Resource Criteria.** Super-Peak Ramping Resources must meet all of the following criteria, except as provided in Sections 40.10.3.4(d) and (e) --
- (1) The resource must be capable of providing Flexible RA Capacity to the CAISO Markets through Economic Bids for Energy and Economic Bids for Ancillary Services Bids that are not flagged as Contingency Only in the Day-Ahead Market, if and to the extent the resource is certified to provide Ancillary Services, which must be submitted each weekday that is not holiday, for a five-hour period to be determined by the CAISO on a seasonal basis;
  - (2) The resource must be capable of providing Energy for a minimum of three continuous hours up to its full Effective Flexible Capacity value including PMin;
  - (3) The resource must be capable of being available on weekdays that are not holidays, as defined in the Business Practice Manual;
  - (4) The resource must be capable of at least one Start-Up per day; and
  - (5) The resource must be capable of responding to at least five CAISO

dispatches per month for the resource to start up.

- (c) **Use-Limited Resource.** A Use-Limited Resource may be included in this category if it meets the criteria in Section 40.10.3.4(b).
- (d) **Non-Generator Resource.** A Non-Generator Resource may be included in this category if it meets the criteria in Section 40.10.3.4(b) and is not registered in the CAISO's Master File as a Regulation Energy Management resource.
- (e) **Non-Generator Resource, Regulation Energy Management.** A Non-Generator Resource that is a Regulation Energy Management resource may be included in this category if it meets the following criteria --
  - (1) The resource must be capable of providing Regulation Energy Management to the CAISO Markets through **Economic** Bids for Regulation Up and Regulation Down submitted daily for a 17-hour period from 5:00 a.m. through 10:00 p.m.;
  - (2) The resource shall not submit bids to provide Energy;
  - (3) The resource must be capable of being available seven days a week;
  - (4) The resource must be capable of unlimited Start-Ups per day; and
  - (5) The resource must be registered as a Non-Generator Resource providing Regulation Energy Management in the CAISO's Master File.
- (f) **Base Ramping and Peak Ramping Resources.** A resource that meets the qualifications of the Flexible Capacity Category for Base Ramping Resources or Peak Ramping Resources also qualifies to be included in this category as a Super-Peak Ramping Resource; however, a resource that meets only the qualifications of ~~this category~~ as a Super-Peak Ramping Resource does not

qualify as a Base Ramping Resource or a Peak Ramping Resource.

#### **40.10.3.5 Flexible Capacity Category By Resource**

The CAISO will provide to the Scheduling Coordinator of each resource the Flexible Capacity Categories for which the resource qualifies to provide Flexible Capacity, as provided in Section 40.10.4.<sup>[CJM11]</sup>

#### **40.10.3.6 Non-Eligible Resources**

Intertie resources and imports, other than Pseudo-Ties and Dynamic Scheduled resources, are not eligible to provide Flexible RA Capacity.**40.10.4 Effective Flexible Capacity**

The CAISO shall calculate the Effective Flexible Capacity value for each resource that submitted at least one Economic Bid for Energy in the Real-Time Market on at least 10 days in the previous calendar year, or in the most recent 12-month period for which data is available. The CAISO shall publish the draft and final lists of the Effective Flexible Capacity values for such resources and the Flexible Capacity Categories for which each resource qualifies to provide Flexible Capacity on the CAISO Website each year in accordance with the schedule for publishing the NQC values, as set forth in the BPM, for use in the next calendar year.

#### **40.10.4.1 Effective Flexible Capacity Calculation(a) Flexible Resources.** The

default Effective Flexible Capacity value of a resource for use (1) if the Local Regulatory Authority or federal agency has not established criteria for calculating the Effective Flexible Capacity value for eligible resource types, or (2) for determining if a collective deficiency exists as provided in Section 43.2.7(a) and (b), will be determined as follows, except as provided in Sections 40.10.4.1 (b) through (f) --<sup>[CJM12]</sup>

- (1) If the Start-Up Time of the resource is greater than 90 minutes, the Effective Flexible Capacity value shall be the weighted average ramp rate of the resource calculated from Pmin to Net Qualifying Capacity multiplied by 180 minutes. The Effective Flexible Capacity shall not exceed the difference between the Pmin and Pmax of the resource .
  - (2) If the Start-Up Time of the resource is less than or equal to 90 minutes, the Effective Flexible Capacity value shall be the weighted average ramp rate of the resource calculated from zero to Net Qualifying Capacity multiplied by 180 minutes. The Effective Flexible Capacity shall not exceed the **Net Qualifying Capacity** of the resource.
- (b) **Hydroelectric Generating Unit.** The Effective Flexible Capacity of a hydroelectric generating unit will be the amount of capacity from which the resource can produce Energy consistently for 6 hours based upon the resource's physical storage capacity, which shall not exceed its Net Qualifying Capacity.
- (c) **Proxy Demand Response Resource.** The Effective Flexible Capacity of a **Proxy** Demand Response Resource will be based on the resource's actual MWs of load **modification** in response to a dispatch by the CAISO during a test event. In determining the Effective Flexible Capacity of a **Proxy** Demand Response Resource, the CAISO will --
- (1) conduct the test at a random time during the flexible capacity must-offer obligation period for the resource;
  - (2) use the baseline load data, as described in the CAISO Tariff or Business Practice Manual, to measure the load **modification** for the **Proxy** Demand

Response Resource being tested; and

(3) pay the resource's bid price for the testing period.

(d) **Energy Storage Resource.** The Effective Flexible Capacity value for an energy storage resource will be determined as follows --

(1) for an energy storage resource that provides Flexible RA Capacity but not Regulation Energy Management, the Effective Flexible Capacity value will be the MW output range the resource can provide over three hours of charge/discharge while constantly ramping.

(2) for an energy storage resource that provides Flexible RA Capacity and Regulation Energy Management, the Effective Flexible Capacity value will be the resource's 15-minute energy output capability.

(e) **Multi-Stage Generating Resource.** The Effective Flexible Capacity value for a Multi-Stage Generating Resource will be calculated using the longest Start-Up Time of the resource's configuration that has the lowest PMin.

(f) **Combined Heat and Power Resource.** The Effective Flexible Capacity value of a Combined Heat and Power Resource will be the lesser of (i) the resource's Net Qualifying Capacity, or (ii) the MW difference between the resource's maximum output and the minimum of either its operating level or its capability over three hours.

#### 40.10.4.2 EFC Omission or Correction

(a) **Draft List.** The posted draft list of Effective Flexible Capacity values may be modified only as follows --

(1) If the Scheduling Coordinator for a resource that was not included on the



draft list of Effective Flexible Capacity values seeks to have the resource included on the list, it must no later than September 1 submit a request to the CAISO either showing that the resource meets the criteria in Section 40.10.4.1 or is capable of meeting the criteria, and provide documentation to enable the CAISO to determine the resource's Effective Flexible Capacity pursuant to the criteria in Section 40.10.4.1. (2) If the Scheduling Coordinator for a resource that was included on the draft list of Effective Flexible Capacity values seeks to change the value for that resource, it must submit documentation no later than September 1 that supports such a change.

- (3) The CAISO will review the information submitted and notify the Scheduling Coordinator whether the change was accepted at least 15 days prior to posting the final list of Effective Flexible Capacity values on the CAISO Website.

(b) **Final List.** The CAISO will post on the CAISO Website the final list of Effective Flexible Capacity values for resources that are in service or that are under construction with an expected in service date during the year **and the Flexible Capacity Categories for which each resource qualifies to provide Flexible Capacity**. The final list shall be used for the next calendar year and shall not be changed during that year, except as follows –

- (1) If the Net Qualifying Capacity or PMax of a resource included on the final list increases or decreases during the year, and that value is changed in the Master File, the Scheduling Coordinator for the resource may request

that the Effective Flexible Capacity value be recalculated to account for the change; or

- (2) If a resource identified as under construction on the final list, or other new resource, achieves commercial operation during the year, the Scheduling Coordinator for the resource may request that the CAISO calculate and add its Effective Flexible Capacity value **and the Flexible Capacity Categories for which the resource qualifies to provide Flexible Capacity** to the final list as an in-service resource.

- (c) **Disputes.** Any disputes as to the CAISO's determination regarding Effective Flexible Capacity shall be subject to the CAISO ADR Procedure.

#### **40.10.5 Flexible RA Capacity Plans**

##### **40.10.5.1 LSE Flexible RA Capacity Plans**

- (a) **Submission Requirement.** A Scheduling Coordinator must submit annual and monthly LSE Flexible RA Capacity Plans for each Load Serving Entity it represents; except that an annual plan for 2015 is not required. A Load-Following MSS is not required to submit annual or monthly LSE Flexible RA Capacity Plans.
- (b) **Annual Plan.** Each annual LSE Flexible RA Capacity Plan must –
  - (1) demonstrate that the Load Serving Entity has procured for each month at least 90 percent of the annual Flexible RA Capacity requirement determined by the CAISO; or the amount of Flexible RA Capacity required by the Load Serving Entity's Local Regulatory Authority, if the Local Regulatory Authority has set such requirement;

- (2) identify the resources the Load Serving Entity intends to rely on to provide the Flexible RA Capacity; and(3) include all information and be submitted no later than the last Business Day in October, in accordance with the reporting requirements and schedule set forth in the Business Practice Manual. (c)

**Monthly Plan.** The monthly LSE Flexible RA Capacity Plan must --

- (1) demonstrate that the Load Serving Entity procured 100 percent of the total monthly Flexible RA Capacity requirement determined by the CAISO; or the monthly amount of Flexible RA Capacity required by the Local Regulatory Authority, if the Local Regulatory Authority has set such requirement;

~~(2) demonstrate that the Load Serving Entity met the total monthly requirement determined by the CAISO within the minimum or maximum quantity, as applicable, for each Flexible Capacity Category; or met the total monthly requirement determined by the LRA within the minimum or maximum quantity, as applicable, for each Flexible Capacity Category required by the Local Regulatory Authority, if the Local Regulatory Authority has established such requirement;~~<sup>[CJM13]</sup>

- ~~(32)~~ identify all resources the Load Serving Entity will rely on to provide the Flexible RA Capacity; and, ~~for each resource, specify the Flexible Capacity Category of the resource under Section 40.10.3.2, 40.10.3.3, or 40.10.3.4 and the corresponding must offer obligation for the resource under Section 40.10.6; and~~ <sup>[CJM14]</sup>

- ~~(43)~~ include all information and be submitted to the CAISO at least 45 days in

advance of the first day of the month covered by the plan, in accordance with the reporting requirements and schedule set forth in the Business Practice Manual.

- (d) **Correction to Monthly Plan.** The Scheduling Coordinator for the Load Serving Entity may submit at any time from 45 days through 11 days in advance of the first day of the month covered by the plan, a revision to its monthly LSE Flexible RA Capacity Plan to correct an error in the plan. The CAISO will not accept any revisions to a monthly LSE Flexible RA Capacity Plan from 10 days in advance of the relevant month through the end of the month, unless the Scheduling Coordinator for the Load Serving Entity demonstrates good cause for the change and explains why it was not possible to submit the change earlier.

#### **40.10.5.2 Resource Flexible RA Capacity Plans**

- (a) **Submission Requirement.** A Scheduling Coordinator must submit annual and monthly Resource Flexible RA Capacity Plans for each resource it represents that provides Flexible RA Capacity; except that an annual plan is not required for 2015.
- (b) **Annual Plan.** The annual Resource Flexible RA Capacity Plan shall --
  - (1) verify the resource's agreement to provide Flexible RA Capacity during the next Resource Adequacy Compliance Year; and
  - (2) include all information and be submitted no later than the last Business Day in October, in accordance with the reporting requirements and schedule set forth in the Business Practice Manual.
- (c) **Monthly Plan.** The monthly Resource Flexible RA Capacity Plan shall --

- (1) verify the resource's agreement to provide Flexible RA Capacity during the month;
  - (2) include an affirmative representation by the Scheduling Coordinator submitting the plan that the CAISO is entitled to rely on the accuracy of the information provided in the plan to perform those functions set forth in this Section 40; and
  - (3) include all information and be submitted to the CAISO at least 45 days in advance of the first day of the month covered by the plan, in accordance with the reporting requirements and schedule set forth in the Business Practice Manual.
- (d) **Correction to Monthly Plan.** The Scheduling Coordinator for the resource may correct an error in the plan by submitting a revision to its monthly Resource Flexible RA Capacity Plan at any time from 45 days through 11 days in advance of the first day of the month covered by the plan. The CAISO will not accept any revisions to a monthly Resource Flexible RA Capacity Plan from 10 days in advance of the relevant month through the end of the month, unless the Scheduling Coordinator for the Resource demonstrates good cause for the change and explains why it was not possible to submit the change earlier.

#### **40.10.5.3 Review of Flexible RA Capacity Plans**

(a) **Validation For Deficiency In An Individual LSE Plan.**

- (1) If the Local Regulatory Authority has not established its own flexible capacity procurement requirements, the CAISO will validate the annual and monthly LSE Flexible RA Capacity Plans for that Local Regulatory Authority's jurisdictional Load Serving Entities, and will use the Effective

Flexible Capacity value for each resource calculated under Section 40.10.4[CJM15]. The CAISO will determine whether each Load Serving Entity met its annual or monthly total Flexible RA Capacity Requirement, ~~and for the monthly LSE Flexible RA Capacity Plan, whether it met the total monthly requirement within the minimum or maximum quantity, as applicable, for each Flexible Capacity Category.~~ [CJM16]

(2) If the Local Regulatory Authority has established its own flexible capacity procurement requirements, the CAISO will not validate the individual LSE Flexible Capacity Plans for that Local Regulatory Authority's jurisdictional Load Serving Entities.

(b) **Identification of Discrepancy.** The CAISO will compare all LSE Flexible RA Capacity Plans and Resource Flexible RA Capacity Plans to identify any discrepancy in the Resource Adequacy Resources listed or the amount of the Resource Adequacy Capacity committed.

(c) **Evaluation For Collective Deficiency.**

(1) The CAISO will evaluate the annual LSE Flexible RA Capacity Plans of all Load Serving Entities to determine whether the total amount of Flexible RA Capacity shown in the plans meets 90 percent of the annual Flexible Capacity Need determined by the CAISO pursuant to Section 40.10.1 or whether a collective deficiency may exist under Section 43.2.7(a).

(2) The CAISO will evaluate the monthly Flexible RA Capacity Plans of all Load Serving Entities to determine whether (i) the total amount of Flexible RA Capacity shown in the plans, ~~limited to the maximum monthly~~

requirement for each category,<sup>77</sup> [CJM17]meets the applicable monthly Flexible Capacity Need determined by the CAISO pursuant to Section 40.10.1 or whether a collective deficiency may exist under Section 43.2.7(b)(1); or (ii) the total amount of Flexible RA Capacity shown in the base ramping Flexible Capacity Category in the plans meets the minimum monthly system-wide requirement for the base ramping Flexible Capacity Category determined by the CAISO pursuant to Section 40.10.1.4 [CJM18] or whether a collective deficiency may exist under Section 43.2.7(b)(2).

- (d) **Calculation of Flexible RA Capacity.** The CAISO will calculate the amount of Flexible RA Capacity included in the annual and monthly Flexible RA Capacity Plans using the MW amount of Flexible RA Capacity for each resource designated in a plan as a Flexible RA Capacity Resource up to the Effective Flexible Capacity value for the resource calculated under Section 40.10.4.
- (e) **Allocated Flexible RA Capacity Requirement.** The CAISO will calculate the Load Serving Entity's allocated annual and monthly Flexible RA Capacity Requirement --
- (1) For Load Serving Entities within a Local Regulatory Authority that has not adopted its own allocation methodology, the CAISO will calculate the Load Serving Entity's allocated requirement based on the CAISO's allocation methodology set forth in Section 40.10.2.
  - (2) For Load Serving Entities within a Local Regulatory Authority that has adopted its own allocation methodology, the CAISO will use that Local Regulatory Authority's methodology for the Local Regulatory Authority's

jurisdictional Load Serving Entities. [CJM19]

#### 40.10.5.4 Deficiency in LSE Flexible RA Capacity Plan

- (a) **Finding and Notification.** If the CAISO's validation under Section 40.10.5.3(a) finds ~~either (i) that the total amount of Flexible RA Capacity included in an annual or monthly LSE Flexible RA Capacity Plan is not sufficient to satisfy the Load Serving Entity's allocated Flexible RA Capacity Requirement [CJM20] or (ii) that the total monthly requirement in a monthly LSE Flexible RA Capacity Plan was not met within the minimum or maximum quantity, as applicable, for each Flexible Capacity Category,~~ the CAISO will --
- (1) notify the relevant Scheduling Coordinator, and the Local Regulatory Authority, or federal agency with jurisdiction over the relevant Load Serving Entity, in an attempt to resolve any deficiency in accordance with the procedures set forth in the Business Practice Manual; and
  - (2) provide the notice at least 25 days in advance of the first day of the month covered by the plan and include the reasons the CAISO believes a deficiency exists.
- (b) **Resolved Deficiency.** If the CAISO issues a notice of deficiency under Section 40.10.5.4(a), and the deficiency is resolved, the Scheduling Coordinator for the Load Serving Entity shall --
- (1) demonstrate, no less than 11 days prior to the first day of the month covered by the LSE Flexible RA Capacity Plan, that the identified deficiency is cured by submitting a revised LSE Flexible RA Capacity Plan, or



(2) advise the CAISO that the Load Serving Entity's Local Regulatory Authority, or federal agency, as appropriate, has determined that no deficiency exists.

(c) **Unresolved Deficiency.** If the CAISO issues a notice of deficiency under Section 40.10.5.4(a) and is not advised that the deficiency is resolved, the CAISO will use the information contained in the Resource Flexible RA Capacity Plan to set the obligations of resources under Section 40.10 and/or to assign any costs incurred under this Section 40 and Section 43.

#### **40.10.5.5 Discrepancy Between Flexible RA Capacity Plans.**

(a) **Finding and Notification.** If the CAISO's review under Section 40.10.5.3(b) finds a discrepancy between an LSE Flexible RA Capacity Plan and a Resource Flexible RA Capacity Plan, the CAISO will --

- (1) notify the relevant Scheduling Coordinators of the mismatch in an attempt to resolve the discrepancy in accordance with the procedures set forth in the Business Practice Manual; and
- (2) provide the notice at least 25 days in advance of the first day of the month covered by the plans and include the reasons the CAISO believes a discrepancy exists.

(b) **Resolved Discrepancy.** If the CAISO issues a notice of discrepancy under Section 40.10.5.5(a) and the discrepancy is resolved, the Scheduling Coordinator must provide the CAISO with a revised LSE Flexible RA Capacity Plan or Resource Flexible RA Capacity Plan, as applicable, no less than 11 days prior to the first day of the month covered by the plans.

- (c) **Unresolved Discrepancy.** If the CAISO issues a notice of discrepancy under Section 40.10.5.5(a) and is not advised that the discrepancy is resolved, the CAISO will use the information contained in the Resource Flexible RA Capacity Plan to set the obligations of resources under Section 40.10 and/or to assign any costs incurred under this Section 40 and Section 43.

#### **40.10.6 Flexible RA Capacity Must-Offer Obligation**

##### **40.10.6.1 Day-Ahead and Real-Time Availability**

- (a) **Must-Offer Obligation.** The Scheduling Coordinator for a resource supplying Flexible RA Capacity must submit Economic Bids for Energy for the full amount of the resource's Flexible RA Capacity, and Economic Bids for Ancillary Services **that are not flagged as Contingency Only in the Day-Ahead Market** for the full amount of the resource's Flexible RA Capacity that is certified to provide Ancillary Services, in the Day-Ahead Market and the Real-Time Market for the applicable Trading Hours that is capable of being economically dispatched as follows, except as provided in Section 40.10.6.1(e) through(h) --
- (1) Flexible Capacity Category -- Base Ramping Resources - the 17-hour period from 5:00 a.m. to 10:00 p.m., seven days a week;
  - (2) Flexible Capacity Category -- Peak Ramping Resources - the five-hour period determined for each season by the CAISO's Flexible Capacity Needs Assessment, seven days a week; and
  - (3) Flexible Capacity Category -- Super-Peak Ramping Resources -- the five-hour period determined for each season by the CAISO's Flexible Capacity Needs Assessment, weekdays, except holidays and as provided

in Section 40.10.6.1(h), until the resource receives and responds to five dispatches for Start-Up during the month, after which the resource will not be subject to a must-offer obligation **as a super-peak ramping resource** for the remainder of that month; **however, any other must-offer obligations for Resource Adequacy Capacity will still apply.**

- (b) **Availability Requirement.** During the period of the applicable must-offer obligation, a Flexible RA Capacity Resource must be operationally available except for limitations specified in the Master File, legal or regulatory prohibitions or as otherwise required by this CAISO Tariff or by Good Utility Practice.
- (c) **Co-optimization.** Through the IFM co-optimization process, the CAISO will utilize available Flexible RA Capacity to provide Energy or Ancillary Services in the most efficient manner to clear the Energy market, manage congestion and procure required Ancillary Services.
- (d) **Participation in RUC.** A Flexible RA Capacity Resource must participate in the RUC to the extent that the resource has available Flexible RA Capacity that is not reflected in an IFM Schedule. Resource Adequacy Capacity participating in RUC will be optimized using a zero dollar (\$0/MW-hour) RUC Availability Bid. Flexible RA Capacity selected in RUC will not be eligible to receive a RUC Availability Payment.
- (e) **Use-Limited Resources.** A Use-Limited Resource providing Flexible RA Capacity must be capable of responding to Dispatch Instructions and, consistent with its use-limitations, must submit Economic Bids for Energy for the full amount of its Flexible RA Capacity, and Economic Bids for Ancillary Services **that are not**

flagged as Contingency Only in the Day-Ahead Market for the full amount of its Flexible RA Capacity that is certified to provide Ancillary Services, in the Day-Ahead Market and the Real-Time Market for the Trading Hours applicable to the resource's Flexible Capacity Category for that month for the Trading Hours that it is capable of being economically dispatched.(f) **Short, Medium or Long**

**Start Units.**

- (1) Short Start Units or Medium Start Units providing Flexible RA Capacity that do not have an IFM Schedule or a RUC Schedule for any of their Resource Adequacy Capacity for a given Trading Hour are required to participate in the Real-Time Market consistent with the provisions in Section 40.6.3 that apply to Short Start Units providing RA Capacity.
- (2) Long Start Units providing Flexible RA Capacity that do not have an IFM Schedule or a RUC Schedule for any of their Resource Adequacy Capacity for a given Trading Hour are required to participate in the Real-Time Market consistent with the provisions in Section 40.6.7 that apply to Long Start Units providing RA Capacity.
- (3) If availability is required under Section 40.6.3 or 40.6.7, the Scheduling Coordinator for the resource must submit to the RTM for that Trading hour for which the resource is capable of responding to Dispatch Instructions:
  - (i) Energy Bids for the full amount of the available Flexible RA Capacity, including capacity for which it has submitted Ancillary Services Bids; and
  - (ii) Ancillary Services Bids for the full amount of its Flexible RA Capacity that is certified to provide Ancillary Services, and for each Ancillary

Service for which the resource is certified, including capacity for which it has submitted Energy Bids.

- (g) **Extremely Long-Start Resources.** Flexible RA Capacity Resources that are Extremely Long-Start Resources must be available to the CAISO by complying with the Extremely Long-Start Commitment Process under Section 31.7 or otherwise committing the resource upon instruction from the CAISO, if physically capable. Once an Extremely Long-Start Resource is committed by the CAISO, it is subject to the provisions of Section 40.10.6.regarding Day-Ahead Availability and Real-Time Availability for the Trading Days for which it was committed.(h)

**Non-Generator Resources, Regulation Energy Management.** Non-Generator Resources providing Flexible RA Capacity and Regulation Energy Management must submit Bids for Regulation Up and Regulation Down for Trading Hours in the 17-hour period from 5:00 a.m. to 10:00 p.m., seven days a week and shall not submit Bids for Energy or other Ancillary Services.

#### **40.10.6.2 Failure to Bid**

If the Scheduling Coordinator for a resource supplying Flexible RA Capacity does not submit Economic Bids for Energy for the full amount of the resource's Flexible RA Capacity, and Economic Bids for Ancillary Services for the full amount of the resource's Flexible RA Capacity that is certified to provide Ancillary Services, in the Day-Ahead Market and the Real-Time Market for the Trading Hours during the period of the applicable must-offer obligation –

- (1) the CAISO will not insert Generated Bids for any Flexible RA Capacity for which the resource did not submit bids; and

(2) An Exceptional Dispatch instruction issued to the resource for all or a portion of its Flexible RA Capacity shall not be an Exceptional Dispatch CPM designation under Section 43.2.5.

#### **43. Capacity Procurement Mechanism**

##### **43.1 [Not Used]**

##### **43.1.1 Capacity Procurement Mechanism Expiration**

The CPM as well as changes made to other Sections to implement the CPM shall expire at midnight on the last day of the forty-eighth month following the effective date of this Section. CPM designations in existence on the expiration date shall continue in effect and remain subject to the CPM, including the provisions concerning compensation, cost allocation and Settlement, until such time as the CPM resources have been finally compensated for their services rendered under the CPM prior to the termination of the CPM, and the CAISO has finally allocated and recovered the costs associated with such CPM compensation. This Section shall also apply to the Flexible Capacity CPM provisions in Section 43 and any Flexible Capacity CPM designations in existence on the expiration date.

##### **43.2 Capacity Procurement Mechanism Designation**

The CAISO shall have the authority to designate Eligible Capacity to provide CPM Capacity services under the CPM to address the following circumstances, as discussed in greater detail in Section 43:

1. Insufficient Local Capacity Area Resources in an annual or monthly Resource Adequacy Plan;
2. Collective deficiency in Local Capacity Area Resources;

3. Insufficient Resource Adequacy Resources in an LSE's annual or monthly Resource Adequacy Plan;
4. A CPM Significant Event;
5. A reliability or operational need for an Exceptional Dispatch CPM;
6. Capacity at risk of retirement within the current RA Compliance Year that will be needed for reliability by the end of the calendar year following the current RA Compliance Year; and
7. A collective deficiency in the total Flexible RA Capacity included in the annual or monthly Flexible RA Capacity Plans, or in a Flexible Capacity Category in the monthly Flexible RA Capacity Plans.

\* \* \* \* \*

#### **43.2.7 Collective Deficiency in Flexible RA Capacity**

- (a) **Annual Plans.** A collective deficiency will exist in the annual LSE Flexible RA Capacity Plans if the total amount of Flexible RA Capacity shown in the plans of all Load Serving Entities, based on the Effective Flexible Capacity value determined by the CAISO for each resource, is less than 90 percent of the annual Flexible Capacity Need determined by the CAISO pursuant to Section 40.10.1.
- (b) **Monthly Plans.** A collective deficiency will exist in the monthly Flexible RA Capacity Plans --
  - (1) if the total amount of Flexible RA Capacity shown in the plans of all Load Serving Entities, ~~limited to the maximum monthly requirement for each category and~~ based on the Effective Flexible Capacity value determined

by the CAISO for each resource, is less than the applicable monthly Flexible Capacity Need determined by the CAISO pursuant to Section 40.10.1; or

- (2) if the total amount of Flexible RA Capacity shown in the base ramping Flexible Capacity Category in the plans of all Load Serving Entities, based on the Effective Flexible Capacity value determined by the CAISO for each resources, is less than the minimum monthly requirement for the base ramping Flexible Capacity Category determined by the CAISO pursuant to Section 40.10.1.4.<sup>[CJM21][CJM22]</sup>

#### **43.2.7.1 Final Opportunity to Resolve Deficiency**

If the processes set forth in Section 40.10.5.4 and 40.10.5.5 do not fully resolve a deficiency or discrepancy in the annual or monthly Flexible RA Capacity Plans, and if the CAISO determines that a collective deficiency exists under Section 43.2.7 and that there is a need for Flexible Capacity CPM, but prior to issuing a Flexible Capacity CPM designation for the collective deficiency –

- (1) the CAISO shall ~~(i)~~ issue a Market Notice that describes the collective deficiency and specifies the quantity of Flexible RA Capacity necessary to meet the applicable Flexible Capacity Need, and either (ii) notify the Load Serving Entities that are deficient in <sup>[CJM23]</sup>the event of a collective deficiency under Section 43.2.7(a) or (b)(1) and the Local Regulatory Authority with jurisdiction over each deficient Load Serving Entity, or (ii) notify the Local Regulatory Authority whose Load Serving Entities submitted monthly Resource Adequacy Plans that collectively failed to



provide a proportionate share of the minimum monthly requirement for the base ramping Flexible Capacity Category determined by the CAISO pursuant to Section 40.10.1.4; [CJM24]

- (2) a Scheduling Coordinator for a Load Serving Entity ~~that is deficient~~ [CJM25] may submit a revised annual or monthly Flexible RA Capacity Plan **to demonstrate** procurement of additional Flexible RA Capacity consistent with the Market Notice issued under this Section; **but shall not include any other revisions in a plan submitted under this Section.** A revised annual Flexible RA Capacity Plan must be submitted no later than December 31 for the following calendar year. A revised monthly Flexible RA Capacity Plan must be submitted no less than five days prior to the first day of the applicable month.

#### **43.2.7.2 Designation**

After the opportunity to resolve the collective deficiency under Section 40.10.5.4 has been exhausted, if total required Flexible RA Capacity reported to the CAISO in revised annual or monthly Flexible RA Capacity Plans does not meet the Flexible RA Capacity Need in accordance with this Section, the CAISO may issue a Flexible Capacity CPM designation in an amount sufficient to alleviate the deficiency.

#### **43.3 Terms Of CPM Designation**

\* \* \* \* \*

#### **43.3.8 Term – Flexible Capacity CPM Designation**

- (a) **Annual Plan.** A Flexible Capacity CPM designation under Section 43.2.7 for the failure to show sufficient Flexible RA Capacity in an annual Flexible RA Capacity

Plan shall have a minimum commitment term of one month and a maximum commitment term of one year, based on the period(s) of overall shortage reflected in the annual plans. The term of a Flexible Capacity CPM designation under this Section must begin and end during the same calendar year.

- (b) **Monthly Plan.** A Flexible Capacity CPM designation under Section 43.2.7 for the failure to show sufficient Flexible RA Capacity in a monthly Flexible RA Capacity Plan shall have a commitment term of one month. The term of a Flexible Capacity CPM designation under this Section must begin and end during the same calendar month.

#### **43.4 Selection Of Eligible Capacity Under The CPM**

In accordance with Good Utility Practice, the CAISO shall make designations of Eligible Capacity as CPM Capacity or CPM Flexible Capacity under Section 43.1 by applying the following criteria in the order listed:

- (1) the effectiveness of the Eligible Capacity at meeting the designation criteria specified in Section 43.2;
- (2) the capacity costs associated with the Eligible Capacity;
- (3) the quantity of a resource's available Eligible Capacity, based on a resource's PMin, relative to the remaining amount of capacity needed;
- (4) the operating characteristics of the resource, such as dispatchability, Ramp Rate, and load-following capability;
- (5) whether the resource is subject to restrictions as a Use-Limited Resource; and

- (6) for designations under Section 43.2.3, the effectiveness of the Eligible Capacity in meeting local and/or zonal constraints or other CAISO system needs.

In applying these selection criteria, the goal of the CAISO is to designate lower cost resources that will be effective in meeting the reliability needs underlying the CPM designations. In making this determination, the CAISO will apply the first criterion to identify the effective Eligible Capacity by considering the effectiveness of the resources at meeting the designation criteria for the type of CPM to be issued and at resolving the underlying reliability need. The CAISO will apply the second criterion by considering the cost of the effective Eligible Capacity. The CAISO will endeavor to designate a resource at the CPM Capacity price determined in accordance with Section 43.6.1 before selecting a resource with a higher unit-specific CPM Capacity price specified under Section 43.6.2. The CAISO will endeavor to designate resources that have specified a capacity price before designating resources that have not specified a CPM Capacity price under Section 43.6.2.1. The CAISO will apply the third criterion by considering the quantity of a resource's Eligible Capacity. The CAISO will endeavor to select a resource that has a PMin at or below the capacity that is needed to meet the reliability need before selecting a resource that has a PMin that would result in over-procurement. The CAISO will apply the fourth criterion by considering specific operating characteristics of a resource, such as dispatchability, ramp rate, and load-following capability to the extent that such characteristics are an important factor in resolving the reliability need. The CAISO will apply the fifth criterion by considering whether a resource is use-limited and whether that status may restrict its ability to be

available to the CAISO in the Day-Ahead Market and Real-Time Market throughout the period for which it is being procured. To the extent that use-limited resources are capable of performing the required service for the duration of the CPM designation, the CAISO will not unduly discriminate in favor of non-Use Limited resources when applying the selection criteria. The CAISO will apply the sixth criterion by considering the effectiveness of the Eligible Capacity to meet local and/or zonal constraints or other CAISO system needs for CPM designations under 43.2.3. If after applying these criteria, two or more resources that are eligible for designation equally satisfy these criteria, the CAISO shall utilize a random selection method to determine the designation between those resources.

#### **43.4.1 Limitation of Eligibility for Flexible Capacity CPM Designation**

- (a) **Committed Capacity.** Capacity committed as RA Capacity, Flexible RA Capacity, RA Replacement Capacity, RA Substitute Capacity, RMR Capacity, or CPM Capacity shall not be eligible to receive a Flexible Capacity CPM designation for the duration of that commitment.
- (b) **Operationally Unavailable Capacity.** Capacity on, or scheduled to be on, a Forced Outage, Approved Maintenance Outage, or de-rate, is not operationally available and shall not be eligible to receive a Flexible Capacity CPM designation for the duration of that unavailability.

**43.4.2 Designation Amount.** While the CAISO does not have to designate the full capability of a resource, the CAISO may designate under the CPM an amount of CPM Capacity or CPM Flexible Capacity from a resource that exceeds the amount of capacity identified to ensure compliance with the Reliability Criteria set forth in Section

40.3 due to the PMin or other operational requirements/limits of a resource that has available capacity to provide CPM service. The CAISO shall not designate the capacity of a resource for an amount of capacity that is less than the resource's PMin.

**43.4.3 Simultaneous Designations.** In the event the CAISO determines that a CPM designation must be issued to resolve a collective deficiency of system RA Capacity under Section 43.2.3 and that a Flexible Capacity CPM designation must be issued to resolve a collective deficiency of Flexible RA Capacity under Section 43.2.7 for annual or monthly plans covering the same or overlapping time periods, the CAISO will apply the criteria in Section 43.4 and endeavor to designate capacity that will be effective in resolving both underlying reliability needs –

- (1) If the MW amount of the simultaneous or overlapping designation is sufficient to resolve both underlying reliability needs, no further designation of CPM Capacity or CPM Flexible Capacity will be issued.
- (2) If the MW amount of the simultaneous or overlapping designation is not sufficient to resolve both underlying reliability needs, the CAISO may designate additional CPM Capacity or CPM Flexible Capacity to cover the remaining deficiency.

#### **43.5 Obligations Of A Resource Designated Under The CPM**

**43.5.1 Availability Obligations.** Capacity and CPM Flexible Capacity from resources designated under the CPM shall be subject to all of the availability, dispatch, testing, reporting, verification and any other applicable requirements imposed under Section 40.6 or Section 40.10.6 as applicable to Resource Adequacy Resources identified in Resource Adequacy Plans and Flexible RA Capacity resources identified in

**Resource Flexible RA Capacity Plans.** In accordance with those requirements, CPM Capacity designated under the CPM shall meet the Day-Ahead availability requirements specified in Section 40.6.1 and the Real-Time availability requirements of Section 40.6.2, and CPM Flexible Capacity shall meet the Day-Ahead and Real-Time availability requirements specified in Section 40.10.6.1. Also in accordance with those requirements, Generating Units designated under the CPM that meet the definition of Short Start Units shall have the obligation to meet the additional availability requirements of Section 40.6.3, and Generating Units designated under the CPM that meet the definition of Long Start Units will have the rights and obligations specified in Section 40.6.7.1.

If the CAISO has not received an Economic Bid or a Self-Schedule for CPM Capacity, the CAISO shall utilize a Generated Bid in accordance with the procedures specified in Section 40.6.8. In addition to Energy Bids, resources designated under the CPM shall submit Ancillary Service Bids for their CPM Capacity and CPM Flexible Capacity to the extent that the resource is certified to provide the Ancillary Service.

#### **43.5.2 Obligation To Provide Capacity And Termination**

The decision to accept a CPM or Flexible Capacity CPM designation shall be voluntary for the Scheduling Coordinator for any resource. If the Scheduling Coordinator for a resource accepts an CPM designation, it shall be obligated to perform for the full quantity and full period of the designation with respect to the amount of CPM Capacity for which it has accepted an CPM designation. If the Scheduling Coordinator for a resource accepts a Flexible Capacity CPM designation, the resource shall be obligated

to perform for the full quantity and full period of the designation, subject to the must-offer obligation in Section 40.10.6 that applies to the Flexible Capacity Category of the resource **that** was designated. If a Participating Generator's or Participating Load's Eligible Capacity is designated under the CPM after the Participating Generator or Participating Load has filed notice to terminate its Participating Generator Agreement, Net Scheduled PGA, Pseudo-Tie Participating Generator Agreement, or Participating Load Agreement or withdraw the Eligible Capacity from its Participating Generator Agreement, Net Scheduled PGA, Pseudo-Tie Participating Generator Agreement, or Participating Load Agreement, and the Scheduling Coordinator for the resource agrees to provide service under the CPM, then the Scheduling Coordinator shall enter into a new Participating Generator Agreement, Net Scheduled PGA, Pseudo-Tie Participating Generator Agreement, or Participating Load Agreement, as applicable, with the CAISO.

**43.5.3 Availability Obligations for Simultaneous Designations.** To the extent a resource accepts simultaneous or overlapping designations as CPM Capacity and CPM Flexible Capacity under Section 43.4.3, that resource shall be subject to the must-offer obligations for both designations.

#### **43.6 Reports**

The CAISO shall publish the following reports and notices.

##### **43.6.1 CPM Designation Market Notice**

The CAISO shall issue a Market Notice within two (2) Business Days of a CPM designation under Sections 43.2.1 through 43.2.6. CPM designations as a result of Exceptional Dispatches shall be subject to the reporting requirement set forth in Section 34.9.4. The Market Notice shall include a preliminary description of what caused the

CPM designation, the name of the resource(s) procured, the preliminary expected duration of the CPM designation, the initial designation period, and an indication that a designation report is being prepared in accordance with Section 43.6.2. For Exceptional Dispatch CPM designations, the market notice shall additionally indicate whether the designation was made to address an Exceptional Dispatch CPM System Reliability Need or an Exceptional Dispatch CPM Non-System Reliability Need, specify the quantity of the Exceptional Dispatch CPM capacity that was procured and the Exceptional Dispatch CPM Term, and identify the engineering assessment the CAISO used to determine the quantity of capacity needed from the resource to address the reliability issue.

#### **43.6.2 Designation Of A Resource Under The CPM**

The CAISO shall post a designation report to the CAISO Website and provide a Market Notice of the availability of the report within the earlier of thirty (30) days of procuring a resource under Sections 43.2.1 through 43.2.6 or ten (10) days after the end of the month. The designation report shall include the following information:

- (1) A description of the reason for the designation (LSE procurement shortfall, Local Capacity Area Resource effectiveness deficiency, or CPM Significant Event), and an explanation of why it was necessary for the CAISO to utilize the CPM authority);
- (2) The following information would be reported for all backstop designations:
  - (a) the resource name;
  - (b) the amount of CPM Capacity and/or CPM Flexible Capacity designated (MW),



- (c) an explanation of why that amount of CPM Capacity and/or CPM Flexible Capacity was designated,
  - (d) the date CPM Capacity and/or CPM Flexible Capacity was designated,
  - (e) the duration of the designation; and
  - (f) the price for the CPM procurement.
- (3) If the reason for the designation is a CPM Significant Event, the CAISO will also include:
- (a) a discussion of the event or events that have occurred, why the CAISO has procured CPM Capacity, and how much has been procured;
  - (b) an assessment of the expected duration of the CPM Significant Event;
  - (c) the duration of the initial designation (thirty (30) days); and
  - (d) a statement as to whether the initial designation has been extended (such that the backstop procurement is now for more than thirty (30) days), and, if it has been extended, the length of the extension.
- (4) If the reason for the designation is Exceptional Dispatch CPM Capacity, the CAISO will also include additional information about the CAISO's determination of the quantity and term of the designation, which supplements the information included in the market notice issued pursuant to Section 43.6.1.

### **43.6.3 Non-Market And Repeated Market Commitment Of Non-RA Capacity**

Within ten (10) calendar days after the end of each month, the CAISO shall post a report to the CAISO Website that identifies for the prior month:

- (1) Any non-market commitments of non-Resource Adequacy Capacity; and
- (2) All market commitments of non-Resource Adequacy Capacity.

The CAISO will provide a Market Notice of the availability of this report. The report will not include commitments of RMR Generation capacity, Resource Adequacy Capacity or designated CPM Capacity. The report shall include the following information:

- (a) the name of the resource;
- (b) the IOU Service Area and Local Capacity Area (if applicable);
- (c) the maximum capacity committed in response to the event (MW);
- (d) how capacity was procured (for example, by RUC or Exceptional Dispatch);
- (e) the reason capacity was committed; and
- (f) information as to whether or not all Resource Adequacy Resources and previously-designated CPM Capacity were used first and, if not, why they were not.

### **43.6.4 [Not Used]**

### **43.7 Payments To Resources Designated Under The CPM**

Scheduling Coordinators for Eligible Capacity may submit to the CAISO an intention to be paid a monthly CPM Capacity Payment under Section 43.7.1 or Section 43.7.2.

Scheduling Coordinators for Eligible Capacity will be able to change their selections annually within thirty (30) days of a CAISO Market Notice seeking such payment

preferences. To the extent a Scheduling Coordinator for Eligible Capacity does not submit a selection to be compensated in accordance with Section 43.7.1, the Scheduling Coordinator shall be deemed to have selected to be paid on a resource-specific basis pursuant to Section 43.7.2, for purposes of the CAISO's CPM designation determinations.

#### **43.7.1 Monthly CPM Capacity Payment**

On February 16, 2012, the fixed CPM Capacity price of \$67.50/kW-year shall become effective and shall remain in effect for two (2) years. On February 16, 2014, the fixed CPM Capacity price shall increase by five (5) percent and the effective price shall be \$70.88/kW-year, which shall remain in effect for two (2) years until February 16, 2016. The fixed CPM Capacity price shall also apply to CPM Flexible Capacity payments.

##### **43.7.1.1 Calculation of Monthly CPM Capacity Payment**

Scheduling Coordinators representing resources receiving payment under Section 43.7.1 shall receive a monthly CPM Capacity Payment for each month of CPM designation equal to the product of the amount of their CPM Capacity or CPM Flexible Capacity, the relevant CPM Availability Factor for Forced Outages, as determined in accordance with Appendix F, Schedule 6, a monthly shaping factor as set forth in Appendix F, Schedule 6, the effective fixed CPM Capacity price per kW-year and the CPM Availability Percentage for Maintenance Outages, so that the formula for determining the monthly CPM Capacity Payment would be as follows:

$$\begin{aligned} & (\text{CPM Capacity MW}) \times (\text{CPM Availability Factor for Forced Outages}) \times \\ & (1/12 \text{ monthly shaping factor}) \times (\text{effective fixed CPM Capacity price per} \\ & \text{kW-year}) \times \text{CPM Availability Percentage for Maintenance Outages.} \end{aligned}$$

The CPM Availability Percentage for Maintenance Outages is equal to the ratio of: (1) the sum of the CPM Capacity MW for each hour of the month across all hours of the month, where the actual capacity MW available to the CAISO, if less than the CPM Capacity MW, shall be substituted for CPM Capacity MW for each hour the resource is not available due to a Maintenance Outage or non-temperature-related ambient de-rates to (2) the product of CPM Capacity MW and the total hours in the month.

The foregoing formula shall apply to all CPM Capacity and CPM Flexible Capacity receiving monthly CPM Capacity Payments under this Section 43.7.1 except for CPM Capacity designated to respond to a CPM Significant Event or an Exceptional Dispatch CPM, in which case the monthly CPM Capacity Payment shall be based proportionately on the actual number of days the resource was designated as CPM Capacity during the month to the total number of days in the month.

For purposes of CPM designations, except for designations for CPM Significant Events and Exceptional Dispatch CPM, the CPM Availability Factor for Forced Outages shall be calculated as the ratio of: (1) the sum of the CPM Capacity MW for each hour of the month across all hours of the month, where the actual capacity MW available to the CAISO, if less than the CPM Capacity MW, shall be substituted for CPM Capacity MW for each hour the resource is not available due to a Forced Outage or temperature-related ambient de-rate, to (2) the product of CPM Capacity MW and the total hours in the month.

For purposes of CPM designations for CPM Significant Events and Exceptional Dispatch CPM, the CPM Availability Factor for Forced Outages shall be calculated as the ratio of: (1) the sum of the CPM Capacity MW for each hour across all hours of the

month or part of the month for which a unit is designated, whichever is applicable, where the actual capacity MW available to the CAISO, if less than the CPM Capacity MW, shall be substituted for CPM Capacity MW for each hour the resource is not available due to a Forced Outage or temperature-related ambient de-rate, to (2) the product of CPM Capacity MW and the total hours in the month or part of the month for which a unit is designated, whichever is applicable.

#### **43.7.1.2 Payments For Simultaneous Designations**

If a resource accepts simultaneous or overlapping designations as CPM Capacity and CPM Flexible Capacity, the MW amount of the CPM capacity payments for the period the designations overlap shall be the highest MW amount of either designation. The resource shall not be provided with two CPM payments for the same capacity.

#### **43.7.2 Resource-Specific CPM Capacity Payment**

If a Scheduling Coordinator for Eligible Capacity believes that the fixed CPM Capacity price per KW-year in effect under Section 43.7.1 will not compensate a resource for its going forward costs, as calculated in accordance with the formula provided in Section 43.7.2.2, the Scheduling Coordinator may annually in accordance with Section 43.7, inform the CAISO of what proposed higher CPM Capacity price or CPM Flexible Capacity price would compensate the resource for its going forward costs and which the Scheduling Coordinator is willing to have the CAISO use for purposes of the CPM designation process ("going forward cost offer price").

##### **43.7.2.1 Failure to Submit Going Forward Cost Offer Price**

A Scheduling Coordinator for a resource is not required to submit a specific going forward cost offer price for such resource under the process provided for in Section

43.7; however, except for an Exceptional Dispatch CPM designation, a Scheduling Coordinator that has not previously identified the going forward cost offer price for a resource must notify the CAISO of what that price is before any CAISO designation of that resource's capacity as CPM Capacity or CPM Flexible Capacity can become effective. In the case of an Exceptional Dispatch CPM designation on behalf of a resource that has not selected the supplemental revenues option, the CPM designation shall become effective notwithstanding the resource's failure to select compensation pursuant to Section 43.7.1 or to identify a going forward cost offer price pursuant to Section 43.7.2. In such a case, the CAISO shall use the compensation under Section 43.7.1 for both dispatch and compensation for the Exceptional Dispatch CPM Term. In the case of a Scheduling Coordinator that has not previously identified the going forward cost offer price for a resource, the cap on supplemental revenues under Section 39.10.4 will be calculated using the monthly capacity payment under Section 43.7.1.

#### **43.7.2.1.1 Determination of Capacity Price**

If the CAISO designates a resource that has proposed a CPM Capacity or CPM Flexible Capacity price above the fixed CPM Capacity price per kW-year in effect under Section 43.7.1, and the sales from the resource are under the jurisdiction of the FERC, the Scheduling Coordinator for the resource shall make a limited resource-specific filing before the FERC to determine the just and reasonable capacity price for the going forward costs for the resource to be used in applying the CAISO's FERC jurisdictional monthly CPM Capacity Payment formula. If the sales from the resource are not under the jurisdiction of the FERC, the Scheduling Coordinator for the resource shall make a non-jurisdictional filing with the FERC to determine the just and reasonable capacity

price for the going forward costs for the resource to be used in applying the CAISO's FERC-jurisdictional monthly CPM Capacity Payment formula.

#### **43.7.2.1.2 Going Forward Cost**

In making the cost justification filing with FERC for a CPM Capacity or CPM Flexible Capacity price above the fixed CPM Capacity price per kW-year under Section 43.7.1, the Scheduling Coordinator for the resource may not propose -- and shall not get paid -- an amount higher than the going forward cost offer price that it had previously proposed to the CAISO as its going forward cost offer price under Section 43.7 or this Section 43.7.2, either prior to or at the time of CPM designation.

Going forward costs for any resource-specific filing under this Section shall be calculated based on the following formula:

(fixed operation & maintenance costs, plus ad valorem taxes, plus administrative & general costs, plus ten (10) percent of the foregoing amounts),

provided such costs shall be converted to a fixed \$/kW-year amount.

#### **43.7.2.2 Resource-Specific Monthly CPM Capacity Payment**

Scheduling Coordinators representing resources receiving payment under Section 43.7.2 shall receive a monthly CPM Capacity Payment for each month of CPM designation equal to the product of the amount of their CPM Capacity or CPM Flexible Capacity, the relevant CPM Availability Factor for Forced Outages as determined in accordance with Appendix F, Schedule 6, a monthly shaping factor as set forth in Appendix F, Schedule 6, the resource-specific CPM Capacity price, as determined by FERC and the CPM Availability Percentage for Maintenance Outages, in accordance with the following formula:

(CPM Capacity MW) x (CPM Availability Factor for Forced Outages) x  
(1/12 monthly shaping factor) x (the resource-specific CPM Capacity price  
as determined by FERC) x CPM Availability Percentage for Maintenance  
Outages.

The CPM Availability Percentage for Maintenance Outages is equal to the ratio of: (1)  
the sum of the CPM Capacity MW for each hour of the month across all hours of the  
month, where the actual capacity MW available to the CAISO, if less than the CPM  
Capacity MW, shall be substituted for CPM Capacity MW for each hour the resource is  
not available due to a Maintenance Outage or non-temperature-related ambient de-rate  
to (2) the product of CPM Capacity MW and the total hours in the month.

The foregoing formula shall apply to all CPM Capacity and CPM Flexible Capacity  
receiving monthly CPM Capacity Payments under Section 43.7.2 except for CPM  
Capacity designated to respond to a CPM Significant Event or Exceptional Dispatch  
CPM, in which case the monthly CPM Capacity Payment shall be based proportionately  
on the actual number of days the resource was designated as CPM Capacity during the  
month and available to the CAISO to the total number of days in the month.

Prior to the determination by FERC of the resource-specific going forward costs for  
CPM Capacity or CPM Flexible Capacity designated and paid pursuant to Section  
43.7.2, the CAISO shall proceed as follows. For the period between the CAISO's  
designation and the FERC's determination, the CAISO shall utilize the fixed CPM  
Capacity price per kW-year in effect under Section 43.7.1 for purposes of the resource-  
specific monthly CPM Capacity Payment for financial Settlement. This amount shall be  
subject to surcharge based on the outcome of the FERC proceeding so that the



resource will receive any higher actual resource-specific payment as determined by FERC for the full period of the CPM designation. Once approved by FERC, the CAISO shall apply the higher of the fixed CPM Capacity price per kW-year in effect under Section 43.7.1 or the resource-specific CPM Capacity price as determined by the FERC.

For purposes of CPM and Flexible Capacity CPM designations, except for designations for CPM Significant Events, the CPM Availability Factor for Forced Outages shall be calculated as the ratio of: (1) the sum of the CPM Capacity MW for each hour of the month across all hours of the month, where the actual capacity MW available to the CAISO, if less than the CPM Capacity MW, shall be substituted for CPM Capacity MW for each hour the resource is not available due to a Forced Outage or temperature-related ambient de-rates, to (2) the product of CPM Capacity MW and the total hours in the month.

For purposes of CPM designations for CPM Significant Events, the CPM Availability Factor for Forced Outages shall be calculated as the ratio of: (1) the sum of the CPM Capacity MW for each hour across all hours of the month or part of the month for which a unit is designated, whichever is applicable, where the actual capacity MW available to the CAISO, if less than the CPM Capacity MW, shall be substituted for CPM Capacity MW for each hour the resource is not available and is not on an authorized Outage, to (2) the product of CPM Capacity MW and the total hours in the month or part of the month for which a unit is designated, whichever is applicable.

For purposes of this Section 43.7.2, an authorized Outage shall be limited to a CAISO Approved Maintenance Outage.

**43.7.3 Market Payments**

In addition to the CPM Capacity Payment identified in Section 43.7, CPM resources, including Flexible Capacity CPM resources, shall be entitled to retain any revenues received as a result of their selection in the CAISO Markets, provided, however, that CPM resources required to participate in the RUC process will be optimized using a zero (\$0) dollar RUC Availability Bid and are not eligible to receive compensation through the RUC process.

**43.8 Allocation of CPM Capacity Payment Costs**

For each month, the CAISO shall allocate the costs of CPM Capacity Payments made pursuant to Section 43.6 as follows:

\* \* \* \* \*

**43.8.8 Allocation of CPM Flexible Capacity Costs**

**(a) Calculation of Deficiency by LRA.**

(1) The CAISO will determine whether each Local Regulatory Authority met its allocable share of the Flexible Capacity Need based on the amount of Flexible RA Capacity that Local Regulatory Authority's jurisdictional Load Serving Entities included in their annual and monthly Flexible RA Capacity Plans in total ~~and for each Flexible Capacity Category.~~ [CIM26]

(2) The CAISO will determine whether the resources included in the monthly Flexible RA Capacity Plans of the Load Serving Entities for each Local Regulatory Authority collectively met the proportionate share of the minimum monthly requirement for the base ramping Flexible Capacity Category determined by the CAISO pursuant to Section 40.10.1.4

[CJM27] applied to the total Flexible Capacity Need allocated to the Local Regulatory Authority pursuant to Section 40.10.2. [CJM28]

- (2) The CAISO will calculate the total amount of Flexible RA Capacity included in the annual and monthly Flexible RA Capacity Plans, and the total amount included in the monthly Flexible RA Capacity Plans for each Flexible Capacity Category using the minimum or maximum quantity, as applicable, for each category, and [CJM29] using the Effective Flexible Capacity value calculated under Section 40.10.4 for each resource designated in a plan as a Flexible RA Capacity Resource.

(b) **Allocation By CAISO Method.**

- (1) If the total amount of Flexible RA Capacity the jurisdictional Load Serving Entities included in their annual Flexible RA Capacity Plans or monthly Flexible RA Capacity Plans, in total and in each Flexible Capacity Category, [CJM30] meets or exceeds the applicable Flexible Capacity Need allocated to their Local Regulatory Authority and the proportionate share of the minimum amount of base ramping Flexible Capacity Category needed system-wide as determined by the CAISO pursuant to Section 40.10.1.4 applied to the total Flexible Capacity Need allocated to the Local Regulatory Authority, [CJM31] the CAISO will not allocate any of the CPM Flexible Capacity costs to the Scheduling Coordinators for those Load Serving Entities.
- (2) If the total amount of Flexible RA Capacity the jurisdictional Load Serving

Entities included in their annual Flexible RA Capacity Plans or monthly Flexible RA Capacity Plans, ~~either in total or for a Flexible Capacity Category~~, is less than the applicable Flexible Capacity Need allocated to their Local Regulatory Authority, or is less than the proportionate share of the minimum amount of base ramping Flexible Capacity Category needed system-wide as determined by the CAISO pursuant to Section 40.10.1.4 applied to the total Flexible Capacity Need allocated to the Local Regulatory Authority, the CAISO will allocate the CPM Flexible Capacity costs proportionately to the Scheduling Coordinator of each jurisdictional Load Serving Entity that failed to meet its procurement obligation or failed to procure resources in proportion to the system-wide limits needed in the base ramping Flexible Capacity Category.

(c) **Allocation by Local Regulatory Authority Method.**

(i) If Load Serving Entities jurisdictional to a Local Regulatory Authority have a collective deficiency under Section 43.8.8(a)(1) [CIM32] and the Local Regulatory Authority has established its own methodology for allocating the Flexible Capacity Need to its jurisdictional Load Serving Entities, the CAISO will use **the Local Regulatory Authority's** methodology to allocate the CPM Flexible Capacity costs to the Scheduling Coordinator of each Load Serving Entity that is jurisdictional to that Local Regulatory Authority and that failed to meet its procurement obligation.

(ii) a Local Regulatory Authority has a collective deficiency under Section 43.8.8(b) and the Local Regulatory Authority has established its own

methodology for allocating procurement in the base ramping Flexible Capacity Category to its jurisdictional Load Serving Entities, the CAISO will use the Local Regulatory Authority's methodology to allocate the CPM Flexible Capacity costs to the Scheduling Coordinator of each Load Serving Entity that is jurisdictional to that Local Regulatory Authority and that failed to meet its procurement obligation, otherwise the CAISO will allocate the CPM Flexible Capacity costs according to Section 43.8.8(b)(2).<sup>CJM33</sup>

- (d) **Reduction of Cost Allocation.** If the CAISO issues a Flexible Capacity CPM designation, a Scheduling Coordinator for a Load Serving Entity that was deficient, but provided additional Flexible RA Capacity in a revised annual or monthly Flexible RA Capacity Plan consistent with the Market Notice under Section 43.2.7.1 --
- (1) will be not be allocated a share of the Flexible Capacity CPM procurement costs if the additional Flexible RA Capacity included in that LSE's revised LSE Flexible RA Capacity Plan resolved the total deficiency of that Load Serving Entity; or
  - (2) will be allocated a share of the Flexible Capacity CPM procurement costs on a proportionate basis to the extent that Load Serving Entity has a remaining partial deficiency. **43.9**

#### **Crediting Of CPM Capacity**

The CAISO shall credit CPM designations to the resource adequacy obligations of Scheduling Coordinators for Load Serving Entities as follows:

- (a) To the extent the cost of CPM designation under Section 43.2.1.1 is allocated to a Scheduling Coordinator on behalf of a LSE under Section 43.8.1, the CAISO shall provide the Scheduling

Coordinator on behalf of the LSE, for the term of the designation, credit towards (1) the LSE's Local Capacity Area Resource obligation under Section 40.3.2 in an amount equal to the LSE's pro rata share of the CPM Capacity designated under Section 43.2.1.1 and (2) the LSE's Demand and Reserve Margin requirements determined under Section 40 in an amount equal to the LSE's pro rata share of the CPM Capacity designated under Section 43.2.1.1.

(b) To the extent the cost of CAISO designation under Section 43.2.2 is allocated to a Scheduling Coordinator on behalf of a LSE under Section 43.8.3, the CAISO shall provide the Scheduling Coordinator on behalf of the LSE, for the term of the designation, credit towards the LSE's Demand and Reserve Margin requirements determined under Section 40 in an amount equal to the LSE's pro rata share of the CPM Capacity designated under Section 43.2.2.

(c) To the extent the cost of CPM designation under Section 43.2.3 is allocated to a Scheduling Coordinator on behalf of a LSE under Section 43.8.4, and the designation is for greater than one month under Section 43.3.4, the CAISO shall provide the Scheduling Coordinator on behalf of the LSE, for the term of the designation, credit towards the LSE's Demand and Reserve Margin requirements determined under Section 40 in an amount equal to

the LSE's pro rata share of the CPM Capacity designated under Section 43.2.3.

- (d) To the extent the cost of CPM designation under Section 43.2.6 is allocated to a Scheduling Coordinator on behalf of a LSE under Section 43.8.7, and the designation is for greater than one month under Section 43.3.7, the CAISO shall provide the Scheduling Coordinator on behalf of the LSE, for the term of the designation, credit towards the LSE's Demand and Reserve Margin requirements determined under Section 40 in an amount equal to the LSE's pro rata share of the CPM Capacity designated under Section 43.2.6.
- (e) The credit provided in this Section shall be used for determining the need for the additional designation of CPM Capacity under Section 43.2 and for allocation of CPM costs under Section 43.8.
- (f) For each Scheduling Coordinator that is provided credit pursuant to this Section, the CAISO shall provide information, including the quantity of capacity procured in MW, necessary to allow the CPUC, other Local Regulatory Authority, or federal agency with jurisdiction over the LSE on whose behalf the credit was provided to determine whether the LSE should receive credit toward its resource adequacy requirements adopted by such agencies or authorities.

**(g) To the extent the cost of Flexible Capacity CPM designation under Section 43.2.7 is allocated to a Scheduling Coordinator for an LSE under Section 43.8.8, and the designation is for greater than one month under Section 43.3.8, the CAISO shall provide the Scheduling Coordinator**

on behalf of the LSE, for the term of the designation, credit towards the LSE's Flexible Capacity requirements determined under Section 40 in an amount equal to the LSE's pro rata share of the CPM Flexible Capacity designated under Section 43.2.7.43.10 [Not Used]

\* \* \* \* \*

## APPENDIX A MASTER DEFINITIONS

### - Effective Flexible Capacity

The maximum MWs of Flexible Capacity a resource has the capability to provide based on the counting criteria set forth in Section 40.10.4.2.

### - Flexible Capacity

The capacity of a resource that is operationally able to respond to Dispatch Instructions to manage variations in load and variable energy resource output.

### - Flexible Capacity Category

The classification of Flexible Capacity as base ramping, peak ramping, or super-peak ramping based on the resource's operational characteristics and ability to meet minimum availability requirements.

### - Flexible Capacity CPM

Flexible Capacity designated under the Capacity Procurement Mechanism, for the term of the designation.

### - Flexible Capacity Need

The MW of Flexible Capacity that the CAISO forecasts will be needed in the next



Resource Adequacy Compliance Year to reliably operate the CAISO Controlled Grid.

**- Flexible Capacity Needs Assessment**

The study performed by the CAISO to forecast the Flexible Capacity Need.

**- Flexible RA Capacity**

Flexible Capacity with an obligation to provide Flexible RA Capacity during a resource adequacy month.

**- LSE Flexible RA Capacity Plan**

A submission by a Scheduling Coordinator for a Load Serving Entity in the form required by the Business Practice Manual to satisfy the requirements of Section 40.10.

**- Maximum Three-Hour Net Load Ramp**

The highest daily increase in CAISO system load within a month, net of wind and solar output, measured over a consecutive three-hour time period.

**Resource Flexible RA Capacity Plan**

A submission by a Scheduling Coordinator for a resource in the form required by the Business Practice Manual to satisfy the requirements of Section 40.10.

**- Maximum Secondary Three-Hour Net-Load Ramp**

The second highest daily increase in CAISO system load, net of wind and solar output, measured over a consecutive three-hour time period that does not correspond with the time period for the Maximum Three-Hour Net Load Ramp.