

### **9.3.1.3 Coordinating ~~Maintenance~~ Outages of RA Resources**

In performing outage coordination management under Section 9, and this Section 9.3.1.3, the CAISO may take into consideration the status of a Generating Unit as a Resource Adequacy Resource, including whether it is Listed Local RA Capacity. The CAISO may deny, reschedule or cancel an Approved Maintenance Outage for facilities that comprise the CAISO Controlled Grid or Generating Units of Participating Generators if it determines that the outage is likely to have a detrimental effect on the availability of Resource Adequacy Capacity or the efficient use and reliable operation of the CAISO Controlled Grid or the facilities of a Connected Entity.

#### **9.3.1.3.1 ~~Replacement Requirement for LSEs~~Not Used**

##### **~~9.3.1.3.1.1 LSE RA Plans~~**

~~Each Scheduling Coordinator for a Load Serving Entity shall submit to the CAISO a monthly Resource Adequacy Plan that meets the requirements set forth in Sections 40.2.2.4 or 40.2.3.4, as applicable. Resource Adequacy Capacity included in the monthly Resource Adequacy Plan that, as of the due date for the plan, is scheduled to take an Approved Maintenance Outage during the period of designation may be subject to replacement. To the extent that a resource included in a monthly Resource Adequacy Plan as Resource Adequacy Capacity is scheduled to take an Approved Maintenance Outage for all or portion of its capacity during the resource adequacy month, the capacity scheduled for outage is not operationally available to the CAISO and may be required by the ISO to be replaced with capacity from another resource(s) that is operationally available in the amount and for the duration of the scheduled outage during that month, as discussed in Sections 9.3.1.3.2.2 through 9.3.1.3.2.5.~~

##### **~~9.3.1.3.1.2 RA Resource Pending Maintenance Outage Requests~~**

~~If a Resource Adequacy Resource requested a planned Maintenance Outage, or change to an Approved Maintenance Outage, more than forty-five days prior to the first day of the resource adequacy month but does not receive approval or denial of the request by the CAISO Outage Coordination Office as of the due date for the Resource Adequacy Plans and Supply Plans, the CAISO Outage Coordination Office, as part of the validation under Sections 9.3.1.3.2.3 and~~

~~40.7(b), will determine whether the outage should be approved and, if so, whether it must be replaced in the Resource Adequacy Plan with capacity from another resource that is operationally available in the amount and for the duration of the scheduled outage during the month.~~

**~~9.3.1.3.1.3 — Optional List of Specified RA Replacement Capacity~~**

~~A Scheduling Coordinator for a Load Serving Entity may include with a monthly Resource Adequacy Plan a list of Specified RA Replacement Capacity for the CAISO's use as RA Replacement Capacity to replace specific Resource Adequacy Capacity identified by the Load Serving Entity that is in its plan and that is scheduled to take an Approved Maintenance Outage during the month, as provided in Sections 9.3.1.3.2.2 and 40.2.2.4. If the Scheduling Coordinator for a Load Serving Entity opts to include a list of Specified RA Replacement Capacity, the CAISO, in its discretion, will use the specified capacity as RA Replacement Capacity to automatically replace the identified Resource Adequacy Capacity included in that Load Serving Entity's Resource Adequacy Plan in the amount and for the days specified by the Load Serving Entity that the Resource Adequacy Resource is scheduled to take an Approved Maintenance Outage during the month. The Specified RA Replacement Capacity will not be subject to the must-offer obligations in Section 40.6 nor the standard capacity product provisions in Section 40.9, unless the specified capacity is used by the CAISO as RA Replacement Capacity as provided in Section 9.3.1.3.2.2. The list of Specified RA Replacement Capacity included with a monthly Resource Adequacy Plan shall:~~

- ~~(a) — Identify the resource being replaced,~~
- ~~(b) — Identify the resource that will provide the Specified RA Replacement Capacity, the MW amount and time period of the replacement, and other information as may be required in the Business Practice Manual, and~~
- ~~(c) — Be submitted in the format required by the Business Practice Manual.~~

**~~9.3.1.3.1.4 — Optional List of Non-Specified RA Capacity~~**

~~A Scheduling Coordinator for a Load Serving Entity may include with a monthly Resource Adequacy Plan a list of Non-Specified RA Capacity for the CAISO's use as RA Replacement Capacity to replace Resource Adequacy Capacity included in that Load Serving Entity's monthly Resource Adequacy Plan that is scheduled to take an Approved Maintenance Outage during the month, as provided in Sections 9.3.1.3.2.3, 9.3.1.3.2.4 and 40.2.2.4. If the Scheduling Coordinator for a Load Serving Entity opts to include a list of Non-Specified RA Capacity in its plan, the CAISO, in its discretion, will select capacity from the list and use the selected capacity as RA Replacement Capacity to automatically replace Resource Adequacy Capacity included in that Load Serving Entity's Resource Adequacy Plan in the amount and for the days on which the CAISO's validation of the plan determines that the designated capacity scheduled to take an Approved Maintenance Outage during the resource adequacy month must be replaced. The listed Non-Specified RA Capacity will not be subject to the must-offer obligations in Section 40.6 nor the standard capacity product provisions in Section 40.9, unless the Non-Specified Capacity is selected by the CAISO and used as RA Replacement Capacity as provided in Section 9.3.1.3.2.4. The list of Non-Specified RA Capacity included with a monthly Resource Adequacy Plan shall:~~

- ~~(a) Rank each resource that has available Non-Specified RA Capacity in the order of use preferred by the Load Serving Entity;~~
- ~~(b) Provide the identity of the resource, the MW amount of available capacity, the time periods when the capacity is available, and other information as may be specified in the Business Practice Manual;~~
- ~~(c) Indicate the willingness of the Load Serving Entity to offer each resource that has available Non-Specified RA Capacity for procurement as backstop capacity under the Capacity Procurement Mechanism pursuant to Section 43; and~~
- ~~(d) Be submitted in the format required by the Business Practice Manual.~~

**9.3.1.3.2 ~~CAISO Replacement Determination For LSE RA Plans~~Not Used**

**~~9.3.1.3.2.1 Review of LSE RA Plans~~**

~~The CAISO shall review each monthly Resource Adequacy Plan pursuant to Section 40.7(b) to validate that the capacity provided is equal to or greater than the applicable forecasted monthly Demand and Reserve Margin for the Load Serving Entity and shall provide the results of this review to the Local Regulatory Authority. Additionally, the CAISO will review each monthly Resource Adequacy Plan to identify any Resource Adequacy Capacity included in the plan that will not be operationally available to the CAISO due to an Approved Maintenance Outage scheduled to occur during the month.~~

**~~9.3.1.3.2.2 — Replacement By Specified RA Replacement Capacity~~**

~~If the review performed by the CAISO under Section 9.3.1.3.2.1 validates that a monthly Resource Adequacy Plan includes no capacity that will be operationally unavailable to the CAISO due to an Approved Maintenance Outage scheduled to occur during the month, no replacement by Specified RA Replacement Capacity will occur. If the review performed by the CAISO under Section 9.3.1.3.2.1 validates that a monthly Resource Adequacy Plan includes capacity that will not be operationally available to the CAISO due to an Approved Maintenance Outage scheduled to occur during the month, and the Load Serving Entity has provided a list of Specified RA Replacement Capacity, then the CAISO will verify that the Specified RA Replacement Capacity is available during the specified replacement period and will replace the unavailable capacity in that Load Serving Entity's Resource Adequacy Plan with the available Specified RA Replacement Capacity. The CAISO will not accept any Specified RA Replacement Capacity that is unavailable during the specified replacement period. The CAISO will notify the Scheduling Coordinator for the Load Serving Entity and Scheduling Coordinator for the resource providing the Specified RA Replacement Capacity that the Specified RA Replacement Capacity has been accepted as RA Replacement Capacity. The Scheduling Coordinator for the resource providing~~

~~the Specified RA Replacement Capacity must verify their agreement to provide the Specified RA Replacement Capacity. For the duration of the period that the resource is providing Specified RA Replacement Capacity, the resource shall be subject to all of the availability, dispatch, testing, reporting, verification and any other applicable requirements imposed on Resource Adequacy Resources by the CAISO Tariff, including the must-offer obligations in Section 40.6 and the standard capacity product provisions in Section 40.9, for the MW amount and duration of the outage replacement period, which includes the full day of the start date and the full day of the end date of the outage.~~

**~~9.3.1.3.2.3 CAISO Replacement Determination~~**

~~Following replacement by Specified RA Replacement Capacity, the CAISO will determine whether Load Serving Entities are required to replace any capacity remaining in their monthly Resource Adequacy Plans that will not be operationally available to the CAISO due to an Approved Maintenance Outage scheduled to occur during the month. The CAISO will make the replacement determination as follows:~~

- ~~(a) For each day of the month, the CAISO will calculate the System Total Available RA Capacity provided in the Resource Adequacy Plans and compare that MW amount to the CAISO system RA Reliability Margin.~~
- ~~(b) For each day of the month where the System Total Available RA Capacity provided in the Resource Adequacy Plans exceeds the CAISO system RA Reliability Margin, the CAISO may determine that no further replacement is required.~~
- ~~(c) For each day of the month where the System Total Available RA Capacity provided in the Resource Adequacy Plans is less than the CAISO system RA Reliability Margin, the CAISO may require replacement of the Resource Adequacy Capacity scheduled to take an Approved Maintenance Outage, as provided in Sections 9.3.1.3.2.3 and 9.3.1.3.2.4. When replacement is required, the Scheduling Coordinator for each Load Serving Entity that did not include in its~~

~~Resource Adequacy Plan available Resource Adequacy Capacity for the day in a MW amount equal to or greater than the applicable forecasted monthly Demand and Reserve Margin for that Load Serving Entity will be required to provide the RA Replacement Capacity.~~

~~(d) When replacement is required under Section 9.3.1.3.2.3(c), the CAISO will consider whether the Resource Adequacy Capacity scheduled to take an Approved Maintenance Outage requires replacement in the reverse order of the dates on which the outage requests were received. The Resource Adequacy Capacity subject to the most recently requested Approved Maintenance Outages will require replacement before the Resource Adequacy Capacity subject to Approved Maintenance Outages that were requested on earlier dates. Any request for a change to an Approved Maintenance Outage that extends the scheduled duration of the outage or increases the MW amount of capacity on outage will be treated as a new outage request.~~

~~(e) Beginning with the date of the most recent request to take an Approved Maintenance Outage during the month, the CAISO will either replace the unavailable Resource Adequacy Capacity with Non-Specified RA Replacement Capacity under Section 9.3.1.3.2.4 or will require the Scheduling Coordinator for the Load Serving Entity to replace the unavailable Resource Adequacy Capacity under Section 9.3.1.3.2.5. The CAISO will continue this replacement process in reverse order of the dates on which the requests to take the Approved Maintenance Outages were received until sufficient unavailable Resource Adequacy Capacity has been replaced each day to meet the criteria set forth in Section 9.3.1.3.2.3(b).~~

**9.3.1.3.2.4 — Replacement By Non-Specified RA Replacement Capacity**

~~For each day of the month where the CAISO determines under Section 9.3.1.3.2.3 that replacement is required of Resource Adequacy Capacity scheduled to take an Approved Maintenance Outage, the CAISO may replace the unavailable capacity with Non-Specified RA~~

Replacement Capacity as follows:

- (a) ~~The CAISO will identify each Load Serving Entity that did not include in its monthly Resource Adequacy Plan available Resource Adequacy Capacity for each day in a MW amount equal to or greater than its applicable forecasted monthly Demand Reserve Margin, and will verify whether each such Load Serving Entity provided a list of Non-Specified RA Replacement Capacity with its plan.~~
- (b) ~~To the extent that a Load Serving Entity provided a list of Non-Specified Replacement Capacity, the CAISO during the replacement process set forth in Section 9.3.1.3.2.3 will select capacity, in its discretion, from the list and use the selected capacity as RA Replacement Capacity to automatically replace unavailable Resource Adequacy Capacity included in that Load Serving Entity's Resource Adequacy Plan for each day where the CAISO determines that replacement is required.~~
- (c) ~~The CAISO will verify whether the Non-Specified RA Replacement Capacity on each list is available during the replacement period and replace the unavailable capacity in the Resource Adequacy Plan with available Non-Specified RA Replacement Capacity. The CAISO will not accept Non-Specified RA Replacement Capacity that is unavailable during the replacement period.~~
- (d) ~~The CAISO will notify the Scheduling Coordinator for the Load Serving Entity and the Scheduling Coordinator for the resource providing the Non-Specified RA Replacement Capacity that the Non-Specified RA Replacement Capacity has been selected as RA Replacement Capacity. The Scheduling Coordinator for the resource providing the Non-Specified RA Replacement Capacity must verify their agreement to provide the Non-Specified RA Replacement Capacity.~~
- (e) ~~For the duration of the period that the Non-Specified RA Capacity is providing RA Replacement Capacity, it shall be subject to all of the availability, dispatch, testing, reporting, verification and any other applicable requirements imposed on~~

~~Resource Adequacy Resources by the CAISO Tariff, including the must-offer obligations in Section 40.6 and the standard capacity product provisions in Section 40.9 for the MW amount and duration of the replacement period, which includes the full day of the start date and the full day of the end date of the outage.~~

#### ~~9.3.1.3.2.5~~ **Unreplaced Capacity In An RA Plan**

~~Following replacement by Non-Specified Capacity, for each day of the month where the criteria set forth in Section 9.3.1.3.2.3(b) is not met, and where the Load Serving Entity either did not provide Non-Specified RA Replacement Capacity, or the Non-Specified RA Replacement Capacity it provided was already selected by the CAISO, was insufficient, or was unavailable during the replacement period, the Scheduling Coordinator for the Load Serving Entity will have a replacement requirement. The CAISO will notify the Scheduling Coordinator for the Load Serving Entity of the replacement requirement and will identify the MW amount of capacity remaining in its Resource Adequacy Plan that will be operationally unavailable to the CAISO due to an Approved Maintenance Outage on that day and that it is required to replace. The CAISO will treat the unreplaced capacity as an outage replacement requirement pursuant to Section 40.7(b). If the Scheduling Coordinator for the Load Serving Entity does not provide sufficient operationally available RA Replacement Capacity to meet the replacement requirement identified by the CAISO, and the resource does not reschedule or cancel the outage after its Supply Plan is submitted, the CAISO may exercise its authority to procure backstop capacity under the Capacity Procurement Mechanism pursuant to Section 43.~~

#### **9.3.1.3.3      Replacement Substitution Requirement Opportunity for RA Resources**

To the extent that a resource is committed to provide Resource Adequacy Capacity during a month, the Scheduling Coordinator for the resource may request an RA Maintenance Outage With Replacement Substitution, RA Maintenance Outage Without Substitution Replacement, Off Peak Opportunity RA Maintenance Outage, or Short-Notice Opportunity RA Outage, or may request to reschedule an Approved Maintenance Outage, for that Resource Adequacy Capacity in accordance with the provisions of this Section. The timelines set forth in this Section for



submitting an Outage request and classifying the outage as a Maintenance Outage or a Forced Outage exclude the day that the request is submitted and the day that the outage is scheduled to commence.

**9.3.1.3.3.1 RA Maintenance Outage With ~~Replacement~~Substitution**

(a) **Substitution ~~Replacement~~ Option.** The Scheduling Coordinator of a Resource Adequacy Resource designated as Resource Adequacy Capacity during the resource adequacy month may request that a planned Maintenance Outage be scheduled, or an Approved Maintenance Outage be rescheduled, as an RA Maintenance Outage With ~~Replacement~~ Substitution during that month.

(b) **Request.** A request for an RA Maintenance Outage With Substitution ~~Replacement~~ must: (i) be submitted to the CAISO ~~no more than forty-five days prior to the first day of the resource adequacy month that the outage is requested for, and~~ no less than eight days prior to the start of the outage; ~~(ii) provide RA Replacement-Substitute Capacity in an amount no less than the Resource Adequacy Capacity designated for the resource for the duration of the scheduled outage;~~ <sup>[A1]</sup> and (ii) provide RA Replacement-Substitute Capacity in an amount no less than the Resource Adequacy Capacity designated for the resource for the duration of the scheduled outage; and (iii) otherwise comply with the requirements set forth in Section 9.

(c) **Approval.**

- (1) The CAISO will consider requests for an RA Maintenance Outage With Substitution ~~Replacement~~ in the order that the requests are received.
- (2) The CAISO may approve the request for an RA Maintenance Outage With Substitution ~~Replacement~~ if it determines that (i) the request meets the requirements in Section 9.3.1.3.3.1(b) and (ii) system conditions and the overall outage schedule provide an opportunity to take the resource out of service without a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid.
- (3) If the request was submitted ~~no more than forty-five days prior to the first day of the resource adequacy month that the outage is requested for, and~~ no less than eight days prior to the start date for the outage, and it meets the requirements in Section 9.3.1.3.3.1(c)(2) the CAISO may approve the request as an RA

Maintenance Outage With ~~Substitution~~Replacement,

(4) If the CAISO denies the request for failing to meet the requirements in Section 9.3.1.3.3.1(c)(2), the Scheduling Coordinator for the Resource Adequacy Resource may request a different schedule for the RA Maintenance Outage With ~~Substitution~~Replacement or may request that the CAISO accommodate the outage without RA ~~Substitute~~Replacement Capacity at another time.

(d) **Resource Adequacy Obligation.** The RA ~~Replacement~~Substitute Capacity for an RA Maintenance Outage With ~~Replacement~~Substitution approved under Section 9.3.1.3.3.1(c)(3) shall be subject to all of the availability, dispatch, testing, reporting, verification and any other applicable requirements imposed on Resource Adequacy Resources by the CAISO Tariff, including the must-offer obligations in Section 40.6 and the RAIM provisions in Section 40.9, for the MW amount and duration of the outage ~~replacement-substitution~~ period, which includes the full day of the start date and the full day of the end date of the outage.

**9.3.1.3.3.2 RA Maintenance Outage Without ~~Substitution~~Replacement**

(a) **Option for No ~~Replacement~~Substitution.** The Scheduling Coordinator for a Resource Adequacy Resource designated as Resource Adequacy Capacity during the resource adequacy month may request that a Maintenance Outage be scheduled, or an Approved Maintenance Outage be rescheduled, as an RA Maintenance Outage Without ~~Replacement~~Substitution, without a requirement to provide RA ~~Replacement~~Substitute Capacity for the unavailable capacity for the duration of the outage to be excluded from the RAIM calculation under Section 40.9.

(b) **Request.** A request for an RA Maintenance Outage Without ~~Replacement~~Substitution must (i) be submitted to the CAISO ~~no more than forty-five days prior to the first day of the resource adequacy month that the outage is requested for, and~~ no less than eight days prior to the start date of the outage, and (ii) otherwise comply with the requirements of Section 9.

(c) **Approval.**

- (1) The CAISO will consider requests received for an RA Maintenance Outage Without ~~Replacement~~ Substitution in the order the requests were received.
- (2) The CAISO may approve a request for an RA Maintenance Outage Without Replacement ~~Substitution~~ if it determines that: (i) the request meets the requirements in Section 9.3.1.3.3.2(b); (ii) system conditions and the overall outage schedule provide an opportunity to take the resource out of service without a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid; and (iii) the outage will not result in insufficient available Resource Adequacy Capacity during the outage period. The analysis of system conditions and the overall outage schedule will include Approved Maintenance Outage requests that were received before and after the request for an RA Maintenance Outage Without Substitution ~~Replacement~~.
- (3) The CAISO will not approve a request for an RA Maintenance Outage Without Substitution ~~Replacement~~ earlier than seven days before the first day of the resource adequacy month, and may hold the request as pending until system conditions are sufficiently known for the CAISO to determine whether the outage meets the requirements in Section 9.3.1.3.3.2(c)(2).
- (4) If the CAISO denies a request for an RA Maintenance Outage Without Substitution ~~Replacement~~ for failing to meet the requirements in Section 9.3.1.3.3.2(c)(2), the Scheduling Coordinator for the Resource Adequacy Resource may request an RA Maintenance Outage with Substitution ~~Replacement~~ or may request that the CAISO accommodate the outage at another time.

#### **9.3.1.3.3.3 Off-Peak Opportunity RA Maintenance Outage**

- (a) **Option for Off-Peak Outage.** The Scheduling Coordinator for a Resource Adequacy Resource designated as Resource Adequacy Capacity during the resource adequacy month may submit a request for an Off-Peak Opportunity RA Maintenance Outage without a requirement to provide RA ~~Replacement~~ Substitute Capacity for the unavailable

capacity for the duration of the outage to be excluded from the RAAIM calculation under Section 40.9.

- (b) **Request.** A request for an Off-Peak Opportunity RA Maintenance Outage must: (i) be submitted to the CAISO ~~no more than forty-five days prior to the first day of the resource adequacy month that the outage is requested for, and~~ no less than eight days prior to the start date for the outage; (ii) schedule the outage to begin during off-peak hours (as specified in the Business Practice Manuals) on a weekday, and to be completed prior to on-peak hours (as specified in the Business Practice Manuals) the following weekday, or to begin during off-peak hours (as specified in the Business Practice Manuals) on Friday, or on Saturday, Sunday, or a holiday, and to be completed prior to on-peak hours (as specified in the Business Practice Manual) on the next weekday; and (iii) otherwise comply with the requirements set forth in Section 9.
- (c) **Approval.**
- (1) The CAISO will consider requests for an Off-Peak Opportunity RA Maintenance Outage in the order the requests were received.
  - (2) If the request was submitted ~~no more than forty-five days prior to the first day of the resource adequacy month that the outage is requested for, and~~ no less than eight days prior to the start date for the outage, the CAISO may approve the request as an Off-Peak Opportunity RA Maintenance Outage if it determines that:
    - (i) the request meets the requirements set forth in Section 9.3.1.3.3.3(b); and (ii) system conditions and the overall outage schedule provide an opportunity to take the resource out of service without a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid.
  - (3) If the CAISO denies a request for an Off-Peak Opportunity RA Maintenance Outage for failing to meet the requirements in Section 9.3.1.3.3.3(c)(2), the Scheduling Coordinator for the Resource Adequacy Resource may request an RA Maintenance Outage with Replacement Substitution or may request that the CAISO accommodate the outage at another time.

- (4) To the extent that an approved Off-Peak Opportunity RA Maintenance Outage is not completed during off-peak hours as scheduled, and extends into on-peak hours, the Scheduling Coordinator for the resource shall submit the portion of the outage that extends into on-peak hours as a new Forced Outage, which shall be subject to the RAAIM provisions in Section 40.9.

**9.3.1.3.3.4 Short-Notice Opportunity RA Outage**

- (a) **Option for Short-Notice Outage.** The Scheduling Coordinator for a Resource Adequacy Resource designated as Resource Adequacy Capacity during the resource adequacy month may submit a request for a Short-Notice Opportunity RA Outage without a requirement to provide ~~RA Replacement Capacity or~~ RA Substitute Capacity for the Resource Adequacy Capacity that will be on the Forced Outage ~~or de-rated to be excluded from the RAAIM calculation under Section 40.9.~~
- (b) A Short-Notice Opportunity RA Outage shall not exceed five days in length. The request for a Short-Notice Opportunity RA Outage must: (i) be submitted no more than seven days prior to the requested start date for the outage; (ii) provide the CAISO adequate time to analyze the request before the outage begins; (iii) be submitted before the outage has commenced as a Forced Outage; and (iv) otherwise comply with the requirements of Section 9.
- (c) **Approval.**
- (1) The CAISO will consider Short-Notice Opportunity RA Outages in the order the requests are received.
- (2) If the request was submitted no more than seven days and **no less than four** **[A2]** days prior to the start date of the outage, the CAISO may approve the request as a Short Notice Opportunity RA Outage if it determines that: (i) the outage and the request meet the requirements set forth in Section 9.3.1.3.3.4(b); (ii) system conditions and the overall outage schedule provide an opportunity to take the resource out of service without a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid; and (iii) the outage will not result

in insufficient available Resource Adequacy Capacity during the outage period.

The approved outage will be a Forced Outage and will not be subject to the RAAIM provisions in Section 40.9.

- (3) If the request was submitted three days or less prior to the start date<sup>[A3]</sup> of the outage, the CAISO may approve the request as a Forced Outage if it determines that: (i) the outage and request meet the requirements set forth in Section 9.3.1.3.3.4(b); (ii) system conditions and the overall outage schedule provide an opportunity to take the resource out of service without a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid; (iii) the outage will not result in insufficient available Resource Adequacy Capacity during the outage period; and (iv) the repairs are necessary to maintain system or resource reliability and require immediate attention to prevent equipment damage or failure. A Short-Notice Opportunity RA Outage approved under this Section will be a Forced Outage but it will not be subject to the RAAIM provisions in Section 40.9.
- (4) To the extent that an approved Short-Notice Opportunity RA Outage is not completed during the originally approved outage schedule, the Scheduling Coordinator for the resource must submit the portion of the outage that continues from the approved completion time until the time the outage is actually completed as a new Forced Outage, which will be subject to the RAAIM provisions in Section 40.9.

**9.3.1.3.4 — ~~Replacement Requirement Information~~ Outage Reporting for Resource Adequacy Resources between 1 MW and 10 MW**

Scheduling Coordinators for Resource Adequacy Resources with a PMax of at least one (1) MW but less than 10 MWs that do not meet the requirement to provide information on Forced Outages in accordance with Section 9.3.10 shall report Outages in accordance with the process set forth in the Business Practice Manual. ~~In order to make information available to Market Participants pertinent to the replacement requirement provisions in Section 9.3.1.3, the CAISO will:~~

- ~~(a) — Annually post on the CAISO Website a calendar of the timeline of due dates for each month of the following resource adequacy compliance year; and~~
- ~~(b) — Provide the opportunity for Market Participants to post and view information on an electronic bulletin board about non-Resource Adequacy Capacity and Non-Designated RA Capacity that may be needed or available as RA Replacement Substitute Capacity in the bilateral market. Use of the bulletin board is voluntary and limited to use for informational purposes only.~~

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## **40.2 Information Requirements For Resource Adequacy Programs**

### **40.2.1 Reserve Sharing Load Serving Entities**

#### **40.2.1.1 Requirements for CPUC Load Serving Entities**

- (a) The Scheduling Coordinator for a CPUC Load Serving Entity must provide the CAISO with all information or data to be provided to the CAISO as required by the CPUC and pursuant to the schedule adopted by the CPUC, except that the monthly Resource Adequacy Plans or the same information as required to be included in the monthly Resource Adequacy Plans, plus any other information the CAISO requires as identified in the Business Practice Manual, shall be submitted to the CAISO no less than 45 days in advance of the first day of the month covered by the plan, as provided in Section 40.2.1.1(e).
- (b) Where the information or data provided to the CAISO under Section 40.2.1.1(a) does not include Reserve Margin(s), then the provisions of Section 40.2.2.1(b) shall apply.
- (c) Where the information or data provided to the CAISO under Section 40.2.1.1(a) does not include criteria for determining qualifying resource types and their Qualifying Capacity, then the provisions of Section 40.8 shall apply.
- (d) Where the information or data provided to the CAISO under Section

40.2.1.1(a) does not include annual and monthly Demand Forecast requirements, then the provisions of Section 40.2.2.3 shall apply.

- (e) Where the information or data provided to the CAISO under Section 40.2.1.1(a) does not include annual and monthly Resource Adequacy Plan requirements that include, at a minimum, identifying Local Capacity Area Resources and Listed Local RA Capacity, or where there is a requirement to submit monthly Resource Adequacy Plans but the submission date is less than 45 days in advance of the first day of the month covered by the plan, then Section 40.2.2.4 shall apply.

## **40.2.2 Non-CPUC Load Serving Entities**

### **40.2.2.1 Reserve Margin**

- (a) The Scheduling Coordinator for a Non-CPUC Load Serving Entity must provide the CAISO with the Reserve Margin(s) adopted by the appropriate Local Regulatory Authority or federal agency for use in the annual Resource Adequacy Plan and monthly Resource Adequacy Plans listed as a percentage of the Demand Forecasts developed in accordance with Section 40.2.2.3.
- (b) For the Scheduling Coordinator for a Non-CPUC Load Serving Entity for which the appropriate Local Regulatory Authority or federal agency has not established a Reserve Margin(s) or a CPUC Load Serving Entity subject to Section 40.2.1.1(b), the Reserve Margin for each month shall be no less than fifteen percent (15%) of the LSE's peak hourly Demand for the applicable month, as determined by the Demand Forecasts developed in accordance with Section 40.2.2.3.

### **40.2.2.2 Qualifying Capacity Criteria**

The Scheduling Coordinator for a Non-CPUC Load Serving Entity must provide the CAISO with a description of the criteria adopted by the Local Regulatory Authority or federal agency for determining qualifying resource types and the Qualifying Capacity from such resources and any



modifications thereto as they are implemented from time to time. The LSE may elect to utilize the criteria set forth in Section 40.8.

#### **40.2.2.3 Demand Forecasts**

If the California Energy Commission does not produce a coincident peak Demand Forecast for a Load Serving Entity, the Scheduling Coordinator for that Load Serving Entity must provide the information requested by the CAISO on the schedule and in the reporting format(s) set forth in the Business Practice Manual.

#### **40.2.2.4 Annual and Monthly Resource Adequacy Plans**

The Scheduling Coordinator for a Non-CPUC Load Serving Entity or a CPUC Load Serving Entity subject to Section 40.2.1.1(b) must provide annual and monthly Resource Adequacy Plans for such Load Serving Entity, as follows:

- (a) Each annual Resource Adequacy Plan must be submitted to the CAISO on a schedule and in the reporting format(s) set forth in the Business Practice Manual. The annual Resource Adequacy Plan must, at a minimum, set forth the Local Capacity Area Resources, if any, procured by the Load Serving Entity as described in Section 40.3, and may identify a Local Capacity Area Resource as Listed Local RA Capacity.
- (b) Each monthly Resource Adequacy Plan or the same information as required to be included in the monthly Resource Adequacy Plan, plus any other information the CAISO requires as identified in the Business Practice Manual, must be submitted to the CAISO at least 45 days in advance of the first day of the month covered by the plan, and in accordance with the schedule and in the reporting format(s) set forth in the Business Practice Manual. The monthly Resource Adequacy Plan must identify all resources, including Local Capacity Area Resources, the Load Serving Entity will rely upon to satisfy the applicable month's peak hour Demand of the Load Serving Entity as determined by the Demand Forecasts developed in accordance with Section 40.2.2.3 and applicable Reserve Margin. For each Local Capacity Area Resource identified

on the monthly Resource Adequacy Plan, the Load Serving Entity also may identify RA Capacity from such resource as Listed Local RA Capacity. Resource Adequacy Plans must utilize the Net Qualifying Capacity requirements of Section 40.4. A Load Serving Entity is not obligated to commit a type of RA capacity on a monthly Resource Adequacy Plan if it holds a monthly obligation of less than 1 MW for that type of RA capacity but is not exempt from committing any other type of RA capacity for that month for which it holds a monthly obligation of 1 MW or greater and is not exempt for any relevant cost allocation from a CPM designation made pursuant to Section 43A associated with a monthly RA capacity obligation of less than 1 MW.

- (c) The Scheduling Coordinator for the Load Serving Entity may submit at any time from 45 days through ~~44~~30 days in advance of the relevant month, a revision to its monthly Resource Adequacy Plan to correct either: (i) a discrepancy between its monthly Resource Adequacy Plan and the monthly Supply Plan of a Resource Adequacy Resource providing that Load Serving Entity with Resource Adequacy Capacity, as provided in Section 40.7(b); or (ii) a deficiency in how much Resource Adequacy Capacity was provided on the monthly Resource Adequacy Plan an error in the plan. -The CAISO will not accept any revisions to a monthly Resource Adequacy Plan from ~~40 days~~30 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.
- (d) ~~In order to ensure that the CAISO's outage replacement determination remains accurate, the~~The Scheduling Coordinator for the Load Serving Entity that submits a revision to its monthly Resource Adequacy Plan to correct a deficiency or discrepancy ~~a error~~ must include in the revision a MW amount of Resource

Adequacy Capacity for each day of the month that is no less than the MW amount of Resource Adequacy Capacity included in its original plan for each day of the month.

~~(e) In order to ensure that the amount of Resource Adequacy Capacity required to be included in the Load Serving Entity's Resource Adequacy Plan is operationally available to the CAISO throughout the resource adequacy month, the Load Serving Entity that submits the monthly Resource Adequacy Plan is subject to the replacement requirement in Section 9.3.1.3.1.~~

\* \* \*

#### **40.3.2 Allocation Of Local Capacity Area Resource Obligations**

The CAISO will allocate ~~responsibility for~~ Local Capacity Area Resources requirements to Scheduling Coordinators for Load Serving Entities in the following sequential manner:

- (a) The responsibility for the aggregate Local Capacity Area Resources required for all Local Capacity Areas within each TAC Area as determined by the Local Capacity Technical Study will be allocated to all Scheduling Coordinators for Load Serving Entities that serve Load in the TAC Area in accordance with the Load Serving Entity's proportionate share of the LSE's TAC Area Load at the time of the CAISO's annual coincident peak Demand set forth in the annual peak Demand Forecast for the next Resource Adequacy Compliance Year as determined by the California Energy Commission. Expressed as a formula, the allocation of Local Area Capacity Resource obligations will be as follows:  $(\sum \text{Local Capacity Area MW in TAC Area from the Local Capacity Technical Study}) * (\text{LSE Demand in TAC Area at CAISO annual coincident peak Demand}) / (\text{Total TAC Area Demand at the time of CAISO annual coincident peak Demand})$ . This will result in a MW responsibility for each Load Serving Entity for each TAC Area in which the LSE serves Load. In

no instance, however, are Load Serving Entities's obligated to commit Local Capacity Area Resources in a particular TAC Area in excess of the quantity of capacity needed by that Load Serving Entity to meet its applicable Demand and Reserve Margin requirements for the applicable compliance month. If the CAISO determines that a Load Serving Entity would have an obligation to show Local Capacity Area Resources of less than 1 MW in a particular TAC Area, then the Load Serving Entity will have an obligation of zero (0) MWs for that TAC Area in that year. The

LSE may meet its MW responsibility, as assigned under this Section, for each TAC Area in which the LSE serves Load by procurement of that MW quantity in any Local Capacity Area in the TAC Area.

- (b) For Scheduling Coordinators for Non-CPUC Load Serving Entities, the Local Capacity Area Resource obligation will be allocated based on Section 40.3.2(a) above.
- (c) For Scheduling Coordinators for CPUC Load Serving Entities, the CAISO will allocate the Local Capacity Area Resource obligation based on an allocation methodology, if any, adopted by the CPUC. However, if the allocation methodology adopted by the CPUC does not fully allocate the total sum of each CPUC Load Serving Entity's proportionate share calculated under Section 40.3.2(a), the CAISO will allocate the difference to all Scheduling Coordinators for CPUC Load Serving Entities in accordance with their proportionate share calculated under 40.3.2(a). If the CPUC does not adopt an allocation methodology, the CAISO will allocate Local Capacity Area Resources to Scheduling Coordinators for CPUC Load Serving Entities based on Section 40.3.2(a).

Once the CAISO has allocated the total responsibility for Local Capacity Area Resources, the CAISO will inform the Scheduling Coordinator for each LSE of the LSE's specific allocated

responsibility for Local Capacity Area Resources in each TAC Area in which the LSE serves Load.

#### **40.3.3 Procurement Of Local Capacity Area Resources By LSEs**

Nothing in this Section 40 obligates any Scheduling Coordinator to demonstrate on behalf of a Load Serving Entity that the Load Serving Entity has procured Local Capacity Area Resources to satisfy capacity requirements for each Local Capacity Area identified in the technical study.

Scheduling Coordinators for Load Serving Entities may aggregate responsibilities for procurement of Local Capacity Area Resources. If a Load Serving Entity has procured Local Capacity Area Resources that satisfy generation capacity requirements for Local Capacity Areas, the Scheduling Coordinator for such Load Serving Entity shall include this information in its annual and monthly Resource Adequacy Plan(s).

\* \* \*

#### **40.4.7 Submission Of Supply Plans**

##### **40.4.7.1 Schedule for Submission of Supply Plans**

Scheduling Coordinators representing Resource Adequacy Resources supplying Resource Adequacy Capacity shall provide the CAISO with annual and monthly Supply Plans, as follows:

- (a) The annual Supply Plan shall be submitted to the CAISO on the schedule set forth in the Business Practice Manual and shall verify their agreement to provide Resource Adequacy Capacity during the next Resource Adequacy Compliance Year. The annual Supply Plan may identify a Local Capacity Area Resource as Listed Local RA Capacity.
- (b) The monthly Supply Plans or the same information as required to be included in the monthly Supply Plan, plus any other information the CAISO requires as identified in the Business Practice Manual, shall be submitted to the CAISO at least 45 days in advance of the first day of the month covered by the plan, and in accordance with the schedule and in the reporting format(s) set forth in the Business Practice Manual, and shall verify their agreement to provide Resource

Adequacy Capacity during that resource adequacy month. The monthly Supply Plan may identify a Local Capacity Area Resource as Listed Local RA Capacity.

- (c) The Scheduling Coordinator for the Resource Adequacy Resource may submit, at any time from 45 days through ~~44~~30 days in advance of the relevant month, a revision to its monthly Supply Plan to correct ~~an error in the plan.~~ a discrepancy between its monthly Supply Plan and a Resource Adequacy Plan of a Load Serving Entity for which that Resource Adequacy Resource is providing Resource Adequacy Capacity, as provided in Section 40.7(b). The CAISO will not accept any revisions to a monthly Supply Plan from ~~40~~30 days in advance of the relevant month through the end of the month, unless the Scheduling Coordinator for the Resource Adequacy Resource demonstrates good cause for the change and explains why it was not possible to submit the change earlier. .

- ~~(d) — The monthly Supply Plan may indicate the willingness of the resource to offer capacity for procurement as backstop capacity under the Capacity Procurement Mechanism pursuant to Section 43, and provide the identity of the resource, the available capacity amount, the time periods when the capacity is available, and other information as may be specified in the Business Practice Manual.~~

\* \* \*

#### **40.7 Compliance**

The CAISO will evaluate Resource Adequacy Plans and Supply Plans as follows:

- (a) ~~(a)~~ — The CAISO will evaluate whether each annual and monthly Resource Adequacy Plan submitted by a Scheduling Coordinator on behalf of a Load Serving Entity demonstrates Resource Adequacy Capacity sufficient to satisfy the Load Serving Entity's (i) allocated responsibility for Local Capacity Area Resources under Section 40.3.2 and (ii) applicable Demand and Reserve Margin requirements. The CAISO will evaluate compliance with the responsibility for demonstrating Local Capacity Area Resources in two phases. Phase 1 of the

Local Capacity Area Resource sufficiency evaluation will be made without regard to capacity's identification as Listed Local RA Capacity. Phase 2 of the Local Capacity Area Resource sufficiency evaluation will consider capacity to be a Local Capacity Area Resource only if it is also Listed Local RA Capacity. If the CAISO determines through the Phase 1 analysis that a Resource Adequacy Plan does not demonstrate Local Capacity Area Resources sufficient to meet its allocated responsibility under Section 40.3.2, compliance with applicable Demand and Reserve Margin requirements, or compliance with any other resource adequacy requirement in this Section 40 or adopted by the CPUC, Local Regulatory Authority, or federal agency, as applicable, then the CAISO will notify the relevant Scheduling Coordinator, CPUC, Local Regulatory Authority, or federal agency with jurisdiction over the relevant Load Serving Entity, or in the case of a mismatch-discrepancy between Resource Adequacy Plan(s) and Supply Plan(s), the relevant Scheduling Coordinators, in an attempt to resolve any deficiency in accordance with the procedures set forth in the Business Practice Manual. The notification will be made at least 25-40 days in advance of the first day of the month covered by the plan and will include the reasons the CAISO believes a deficiency exists. If the deficiency relates to the demonstration of Local Capacity Area Resources in a Load Serving Entity's annual Resource Adequacy Plan, and the CAISO does not provide a written notice of resolution of the deficiency as set forth in the Business Practice Manual, the Scheduling Coordinator for the Load Serving Entity may demonstrate that the identified deficiency is cured by submitting a revised annual Resource Adequacy Plan within thirty (30) days of the beginning of the Resource Adequacy Compliance Year. For all other identified deficiencies, other than an insufficiency identified through Phase 2 of the Local Capacity Area Resource sufficiency evaluation, at least ~~ten (10)~~30 days prior to the effective month of the relevant Resource Adequacy Plan, the Scheduling Coordinator for the Load Serving Entity shall: (i)

demonstrate that the identified deficiency is cured by submitting a revised Resource Adequacy Plan; or (ii) advise the CAISO that the CPUC, Local Regulatory Authority, or federal agency, as appropriate, has determined that no deficiency exists. If the CAISO identifies an insufficiency through Phase 2 of the Local Capacity Area Resource sufficiency evaluation, then the CAISO may notify the relevant Local Regulatory Authority of the insufficiency but may take no other adverse action towards the insufficient Load Serving Entity.

- (b) ~~The CAISO will evaluate whether each monthly Resource Adequacy Plan submitted by a Scheduling Coordinator on behalf of a Load Serving Entity demonstrates operationally available Resource Adequacy Capacity, excluding capacity scheduled to take an Approved Maintenance Outage during the resource adequacy month, that is equal to or greater than the Load Serving Entity's applicable forecasted monthly Demand and Reserve Margin. For each day of the month where the CAISO determines that the criteria set forth in Section 9.3.1.3.2.3(b) is not met, if a monthly Resource Adequacy Plan (i) includes capacity scheduled to take an Approved Maintenance Outage on that day that has not been replaced pursuant to Sections 9.3.1.3.1, or 9.3.1.3.2, and (ii) does not demonstrate operationally available Resource Adequacy Capacity equal to or greater than the Load Serving Entity's applicable forecasted monthly Demand and Reserve Margin, the CAISO will require outage replacement and will provide notice of the outage replacement requirement to the Local Regulatory Authority, the Scheduling Coordinator for the Load Serving Entity, and the Scheduling Coordinator for the Resource Adequacy Resource scheduled to take the Approved Maintenance Outage. The notification will be made at least 25 days in advance of the first day of the month covered by the plan and will include the reasons why the CAISO believes an outage replacement requirement exists. At least eleven (11) days prior to the resource adequacy month, the Scheduling Coordinator for either the Load Serving Entity or the Resource Adequacy~~



~~Resource may demonstrate that the identified outage replacement requirement is cured by submitting to the CAISO a revision or update to the monthly Resource Adequacy Plan or Supply Plan, as applicable. If neither the Scheduling Coordinator for the Load Serving Entity nor the Scheduling Coordinator for the Resource Adequacy Resource timely advises the CAISO that the identified outage replacement requirement is cured, the CAISO may exercise its authority to procure backstop capacity under the Capacity Procurement Mechanism pursuant to Section 43.~~

- (e) In the case of a mismatch-discrepancy between Resource Adequacy Plan(s) and Supply Plan(s), if resolved, the relevant Scheduling Coordinator(s) must provide the CAISO with revised Resource Adequacy Plan(s) or Supply Plans, as applicable, at least ~~ten (10)~~ 30 days prior to the effective month. If the CAISO is not advised that the deficiency or mismatch-discrepancy is resolved at least ~~ten (10)~~ 30 days prior to the effective month, the CAISO will use the information contained in the Supply Plan to set the obligations of Resource Adequacy Resources under this Section 40 and/or to assign any costs incurred under this Section 40 and Section 43.

\* \* \*

#### 40.9.2 Exemptions

- (a) **Capacity Exempt from RAIM-All Provisions.** The entire capacity of a resource in any of the following categories is exempt from the RAIM provisions in Section 40.9 –
- (1) Resources with PMax less than 1.0 MW;
  - (2) Non-specified resources that provide Resource Adequacy Capacity under contracts for Energy delivered within the CAISO Balancing Authority Area;
  - (3) Participating Load that is also Pumping Load; and
  - (4) RMR Units.

\* \* \*

#### 40.9.3.4 Treatment of ~~Maintenance~~ Outages

- (a) **RA Substitute Capacity Not Required**~~Replacement Not Required~~. The RAIM Availability Assessment for a Resource Adequacy Resource excludes the capacity, duration, and must-offer requirements for Resource Adequacy Capacity ~~--~~
- (1) ~~with an Approved Maintenance Outage or pending request for a Maintenance Outage as of 45 days prior to the start date of the Resource Adequacy month; however any subsequent incremental increase in the MWs or duration of the outage will be subject to RAIM unless RA Replacement Capacity for the incremental outage is required and provided or is not required; or~~
- (2) ~~on an Approved Maintenance Outage during the Resource Adequacy month that does not require RA Replacement Capacity~~Substitute Capacity under Section 9.3.1.3.3.
- (b) ~~Replacement Requirement Provided.~~ **RA Substitute Capacity Required and Provided.** For each ~~Maintenance Outage that a Resource Adequacy Resource requests less than 45 days prior to the start of the relevant resource adequacy month and that requires RA Replacement~~Substitute Capacity under Section 40.9.3.6 to avoid imposition of RAIM charges --
- (1) the RAIM Availability Assessment for the resource excludes the capacity, duration, and must-offer requirement for Resource Adequacy Capacity on ~~an Approved Maintenance~~Outage to the extent the resource provides RA ~~Replacement~~Substitute Capacity for that outage as required under Section ~~9.3.1.3.3~~40.9.3.6; and
- (2) the RAIM Availability Assessment for the ~~replacement-substitute~~ resource includes the capacity, duration, and must-offer requirement for the RA ~~Replacement~~Substitute Capacity commitment. For each day the substitute resource is committed to provide Flexible RA Capacity and/or RA Substitute Capacity in more than one Flexible Capacity Category, the RAIM Availability Assessment applies the must-offer obligation for the highest quality Flexible Capacity Category to the total MWs of the flexible capacity requirement. For the purposes of this Section 40.9, base ramping resources (as defined

in section 40.10.3.2) are considered to be a higher quality of Flexible Capacity Category than either peak ramping resources (as defined in section 40.10.3.3) or super-peak ramping resources (as defined in section 40.10.3.4). Additionally, peak ramping resources (as defined in section 40.10.3.3) are considered to be a higher quality of Flexible Capacity Category than super-peak ramping resources (as defined in section 40.10.3.4).

(c) **RA Substitute Capacity Required and not Provided. ~~Replacement Requirement Not Provided.~~** ~~For each Outage that requires RA Substitute Capacity under Section 40.9.3.6 to avoid imposition of RAIM charges, For each Maintenance Outage that a Resource Adequacy Resource requests less than 45 days prior to the start of the relevant resource adequacy month,~~ the RAIM Availability Assessment for the resource includes the capacity, duration, and must-offer requirement for Resource Adequacy Capacity on an ~~Approved Maintenance~~ Outage to the extent the resource does not provide RA ~~Replacement~~ Substitute Capacity for the outage as required under Section ~~9.3.1.3.3~~ 40.9.3.6.

(d) **Exclusions from RAIM for certain Forced Outage types.** The RAIM Availability Assessment excludes the capacity, duration, and must-offer requirement for local and/or system Resource Adequacy Capacity or Flexible RA Capacity on a Forced Outage in a nature of work category relating to an administrative action by the resource owner, a cause outside of the control of the resource owner, or a short-term use limitation, as those categories are specified in the Business Practice Manual.

(e) **Derates on Generating Units Providing system RA Capacity and Listed Local RA Capacity**

If a Generating Unit providing both system RA Capacity and Listed Local RA Capacity is on Forced Outage, then for purposes of RAIM and RA Substitute Capacity the quantity of the Forced Outage will be apportioned first to the system RA Capacity provided from that Generating

Unit. If the quantity of the Forced Outage exceeds the quantity of system RA Capacity provided by the Generating Unit, then the remainder of the Forced Outage shall be apportioned to the Listed Local RA Capacity provided by the Generating Unit.

**40.9.3.5 ~~Treatment of Forced Outages~~Not Used**

~~(a) **RA Substitute Capacity – Local And System** (1) The RAAIM Availability Assessment for a Resource Adequacy Resource includes the capacity, duration, and must-offer requirement for Resource Adequacy Capacity on a Forced Outage, except to extent the resource provides RA Substitute Capacity for the outage in accordance with Section 40.9.3.6.~~

~~(2) The RAAIM Availability Assessment for the substitute resource includes the capacity, duration, and must-offer requirement for the RA Substitute Capacity.~~

~~(b) **RA Substitute Capacity – Flexible**~~

~~(1) The RAAIM Availability Assessment for a Flexible RA Resource includes the capacity, duration, and must-offer requirement for Flexible RA Capacity on a Forced Outage, except to extent the resource provides RA Substitute Capacity for that outage in accordance with Section 40.9.3.6.~~

~~(2) The RAAIM Availability Assessment for the substitute resource includes the capacity, duration, and must-offer requirement for the RA Substitute Capacity.~~

~~(3) For each day the substitute resource is committed to provide Flexible RA Capacity and/or RA Substitute Capacity in more than one Flexible Capacity Category, the RAAIM Availability Assessment applies the must-offer obligation for the highest quality Flexible Capacity Category to the total MWs of the flexible capacity requirement.(c)~~

~~**Exclusions from RAAIM.** The RAAIM Availability Assessment excludes the capacity, duration, and must-offer requirement for local and/or system Resource Adequacy Capacity or Flexible RA Capacity on a Forced Outage in a nature of work category relating to an administrative action by the resource owner, a cause outside of the control of the resource owner, or a short-term use limitation, as those categories are specified in the Business Practice Manual.~~

~~(d) Scheduling Coordinators for Resource Adequacy Resources with a PMax of at least one (1) MW but less than 10 MWs that do not meet the requirement to provide information on Forced Outages in accordance with Section 9.3.10 shall report outages and de-rates in accordance with the process set forth the Business Practice Manual.~~

**40.9.3.6 Substitute Capacity**

**40.9.3.6.1 CAISO Evaluation by T-22 of Need for Substitute Capacity for Outages Submitted by T-25**

No later than 22 days before the start of each month, the CAISO will determine for each day in that month whether it will have sufficient operationally available RA Capacity from a combination of Local Capacity Area Resources and system capacity resources to meet or exceed the CAISO system RA Reliability Margin for each day. The CAISO will base this assessment on Maintenance Outages planned to be taken during the month that were submitted at least 25 days before the start of the month and any RA Substitute Capacity already provided to the CAISO for that month.

If the CAISO determines that it will have sufficient operationally available RA Capacity to meet or exceed the CAISO system RA Reliability Margin for a particular day, then no supplier with an outage submitted at least 25 days before the start of the month would be required to provide RA Substitute Capacity to be excluded from the RAIM calculation as part of the analysis conducted no later than 22 days before the start of each month.

If the CAISO determines that it will not have sufficient operationally available RA capacity to meet the CAISO system RA Reliability Margin for a particular day, then it will determine which resources must provide RA Substitute Capacity to be excluded from the RAIM calculation based on the reverse order of the dates on which the resources submitted the outage requests to the CAISO. The CAISO will first request the resource providing RA Capacity with the most-recently-requested outage for that day to provide RA Substitute Capacity and then will continue to assign substitution opportunities until the CAISO has sufficient operationally available RA Capacity to meet the CAISO system RA Reliability Margin for that particular day, assuming that all resources that are assigned a RA Substitute Capacity obligation actually provide RA Substitute Capacity for

that day.

For purposes of this section 40.9.3.6.1, the CAISO will treat any request to extend the scheduled duration of an outage or increase the MW amount of capacity on outage as a new outage request and will assign a new priority date based on when the request to change the outage or derate was submitted to the CAISO. For the purposes of this section 40.9.3.6.1, the CAISO will not assign a new priority date where the Scheduling Coordinator requests to reduce the scheduled duration of an outage or decrease the MW amount of capacity on outage.

A resource designated to provide RA Substitute Capacity as part of the analysis conducted no later than 22 days before the start of each month must designate RA Substitute Capacity by the deadline specified in the relevant Business Practice Manual. Failure to designate the RA Substitute Capacity by the specified deadline will subject the resource to RAIM unless the outage is cancelled or rescheduled.

**40.9.3.6.2 CAISO Rolling Evaluation of Need for Substitute Capacity for Outages Submitted after T-25**

Starting at twenty-four days before the start of a month, the CAISO will consider submitted Maintenance Outages for a substitution requirement on a rolling basis, based on time of submission. Upon submission of the outage request, the CAISO will determine for each day of the outage whether the CAISO will have sufficient operationally available RA Capacity from a combination of Local Capacity Area Resources and system capacity resources to meet or exceed the CAISO system RA Reliability Margin for each day. The CAISO will base this assessment on Maintenance Outages planned to be taken for that day and any RA Substitute Capacity already provided to the CAISO for that day.

If the CAISO determines that it will have sufficient operationally available RA Capacity to meet or exceed the CAISO system RA Reliability Margin for a particular day, then the supplier will not be required to provide RA Substitute Capacity for that day to avoid imposition of RAIM.

If the CAISO determines that it will not have sufficient operationally available RA capacity to meet the CAISO system RA Reliability Margin for a particular day, then it will request substitution for the resource for that day. Failure to designate RA Substitute Capacity by the deadline specified in the relevant Business Practice Manual will subject the resource to RAIM unless the outage is

cancelled or rescheduled.

The CAISO will not conduct an assessment to determine the need to provide RA Substitute Capacity for Forced Outages. Any such outage, irrespective of whether the resource is providing RA Capacity or Flexible RA Capacity, will be subject to applicable RAAIM unless the Scheduling Coordinator for the resource provides Substitute Capacity by the deadline specified in the relevant Business Practice Manual, the outage is exempt from RAAIM as set forth in Section 9 or Section 40, the outage is cancelled, or the outage is rescheduled.

For purposes of this section 40.9.3.6.2, the CAISO will treat any request to extend the scheduled duration of an outage or increase the MW amount of capacity on outage as a new outage request and will assign a new priority date based on when the request to change the outage or derate was submitted to the CAISO. For purposes of this section 40.9.3.6.2, the CAISO will reevaluate the need for a Scheduling Coordinator to provide RA Substitute Capacity where the Scheduling Coordinator requests to reduce the scheduled duration of an outage or decrease the MW amount of capacity on outage but will not assign a new priority date.

#### **40.9.3.6.3 General Provisions on Substitute Capacity**

(a) **Substitution**

- (1) The Scheduling Coordinator for a Resource Adequacy Resource may provide RA Substitute Capacity for its local and/or system Resource Adequacy Capacity or Flexible RA Capacity on Outage. ~~a Forced Outage or de-rate.~~ Certain types of Outages, as defined elsewhere in Section 9 or Section 40, will not subject the Scheduling Coordinator for a Resource Adequacy Resource to RAAIM if it declines to provide RA Substitute Capacity.
- (2) If the Resource Adequacy Resource on ~~outage~~ Outage and the substituting resource do not have the same Scheduling Coordinator, the Scheduling Coordinator for the substituting resource must confirm and approve the proposed substitution in accordance with the process set forth in the Business Practice Manual.

(b) **Availability**

- (1) RA Substitute Capacity must be operationally available to the CAISO:
- (2) Capacity on, or scheduled to be on, a Forced Outage, Approved Maintenance Outage, or de-rate, is not operationally available and shall not qualify to be RA Substitute Capacity for the duration of the period that it is unavailable.
- (3) ~~RA Replacement Capacity~~, RMR Capacity, CPM Capacity, and capacity committed to be Resource Adequacy Capacity in a monthly Supply Plan shall not qualify to be RA Substitute Capacity for the duration of that commitment.
- (4) RA Substitute Capacity shall not qualify to be ~~RA Replacement Capacity~~, RMR Capacity, CPM Capacity, or Resource Adequacy Capacity in a monthly Supply Plan, for the duration of the substitution.
- (5) If a resource provides RA Substitute Capacity for multiple Resource Adequacy Resources under Section 40.9.3.6.36, the same capacity committed as RA Substitute Capacity for one Resource Adequacy Resource shall not qualify as RA Substitute Capacity for a different Resource Adequacy Resource during the same substitution period.
- (6) RA Substitute Capacity will be treated as Resource Adequacy Capacity during the period of substitution for purposes of a Forced Outage or de-rate allocation.

(c) **Timing of Substitution Request**

- (1) **Day-Ahead Market.** Requests for substitution for Forced Outages in the Day-Ahead Market must be submitted in accordance with the timeline specified in the Business Practice Manual and be approved by the CAISO to be included in the Day-Ahead Market for the next Trading Day. Requests for substitution for Forced Outages in the Day-Ahead Market submitted at or after the timeline specified in the Business Practice Manual and that are approved by the CAISO will be included in the Day-Ahead Market for the second Trading Day.



- (2) **Real-Time Market.** Requests for substitution for Forced Outages in the Real-Time Market must be submitted in accordance with the timeline in the Business Practice Manual.

#### **40.9.3.6.14 RA Substitute Capacity From A Single Resource**

- (a) **Option.** The Scheduling Coordinator for a Resource Adequacy Resource that is on ~~a Forced Outage or de-rate Outage~~ may provide RA Substitute Capacity for that capacity from a single resource.
- (b) **Local Capacity Area Resource Substitution**
  - (1) **Pre-Qualified Substitution.**
    - (A) **Annual Process.** The CAISO annually will ~~annually~~ conduct a process to assess the eligibility of resources to pre-qualify as RA Substitute Capacity for Local Capacity Resource Adequacy Resources that potentially could be Listed Local RA Capacity in the time period covered by the process. The CAISO will publish a list of the pre-qualified resources in accordance with the timeline in the Business Practice Manual.
    - (B) **Pre-Qualification Requirement.** The CAISO will pre-qualify a resource to provide RA Substitute Capacity that is located at the same bus as, or a compatible bus to, that of the Local Capacity Area Resource Adequacy Resource for which it could substitute.
    - (C) **Request.** To use a pre-qualified resource in the Day-Ahead Market or Real-Time Market as RA Substitute Capacity, the Scheduling Coordinator for the Local Capacity Area Resource Adequacy Resource ~~on a Forced Outage or de-rate on Outage~~ must submit a timely substitution request in accordance with Section 40.9.3.6.3(c).
    - (D) **Approval.** The CAISO will grant a request that meets the requirements in Sections 40.9.3.6.14(b)(1)(C) and 40.9.3.6.3(b).

(2) **Non-Pre-Qualified Substitution.**

- (A) **Day-Ahead Market.** The Scheduling Coordinator for ~~a Local Capacity Area Resource Adequacy Resource Listed Local RA Capacity~~ on a ~~Forced Outage or de-rate Outage~~ may submit a request to substitute a non-pre-qualified resource only in the Day-Ahead Market.
- (B) **Request.** To use a non-pre-qualified resource as RA Substitute Capacity, the Scheduling Coordinator for the Listed Local RA Capacity ~~Local Capacity Area Resource Adequacy Resource~~ must submit a timely substitution request in accordance with Section 40.9.3.6.3(c), and the alternate resource must be located in the same Local Capacity Area.
- (C) **Approval.** The CAISO will grant a request that meets the requirements in Sections 40.9.3.6.14(b)(2)(A) and (B), and 40.9.3.6.3(b).

(c) **Non-Local Capacity Area Resource Substitution**

- (1) **Request.** To use a resource as RA Substitute Capacity, the Scheduling Coordinator for RA Capacity other than Listed Local RA Capacity ~~a non-Local Capacity Area Resource Adequacy Resource~~ that has an Outage ~~Forced Outage or de-rate~~ must submit a timely substitution request in the Day-Ahead Market or Real-Time Market in accordance with Section 40.9.3.6.3(c).
- (2) **Approval.** The CAISO will grant the request if the alternate resource has adequate deliverable capacity to provide the RA Substitute Capacity and meets the requirements in Sections 40.9.3.6.14(c)(1) and 40.9.3.6.3(b).

(d) **External Resources**

- (1) **Request.** To use a Dynamic System Resource, Non-Dynamic System Resource, NRS-RA Resource, or Pseudo-Tie as RA Substitute Capacity, the Scheduling Coordinator for a Resource Adequacy Resource that has an Outage ~~a Forced Outage or de-rate~~ must submit a timely substitution request in the Day-Ahead Market in accordance with Section 40.9.3.6.3(c).

- (2) **Approval.** The CAISO will grant the request if the alternate resource is external to the CAISO Balancing Authority Area (including Pseudo-Ties), the Scheduling Coordinator for the resource has an adequate available import allocation at the resource's Scheduling Point to provide the RA Substitute Capacity, and meets the requirements in Sections 40.9.3.6.~~44~~(d)(1) and 40.9.3.6.3(b).

(e) **Flexible RA Capacity**

- (1) **Request.** To use a resource as RA Substitute Capacity, the Scheduling Coordinator for the Flexible RA Resource that has a Forced Outage ~~or de-rate~~ must submit a timely substitution request in the Day-Ahead Market or Real-Time Market in accordance with Section 40.9.3.6.3(c) and specify the MW of RA Substitute Capacity to be provided, which may not exceed the MWs of the outage.
- (2) **Approval.** The CAISO will grant the request if the alternate resource has adequate deliverable capacity to provide the RA Substitute Capacity, meets the applicable requirements in Sections 40.9.3.6.~~44~~(e) and 40.9.3.6.3(b), and is capable of meeting the must-offer obligation in Section 40.10.6 applicable to the highest quality Flexible Capacity Category for the MWs of the Flexible RA Capacity commitments of the resource on outage and the alternate resource.

**40.9.3.6.~~2-5~~ RA Substitute Capacity From Multiple Resources**

- (a) **Option.** The Scheduling Coordinator for a Resource Adequacy Resource on ~~Outagea Forced Outage or de-rate~~ may submit a request to substitute that capacity with RA Substitute Capacity from multiple alternate resources, including a resource already providing RA Substitute Capacity for one or more Resource Adequacy Resources.

(b) **Local Capacity Area Resource Substitution**

- (1) **Request.** To use RA Substitute Capacity from multiple resources, the Scheduling Coordinator for ~~the Listed Local RA Capacity~~Local Capacity Area Resource Adequacy Resource ~~on a Forced Outage or de-rate~~ Outage must submit a timely substitution request in the Day-Ahead Market in accordance with

Section 40.9.3.6.3(c) if any of the alternate resources are not pre-qualified to substitute for the resource on the outage; however, if all of the alternate resources are pre-qualified to provide RA Substitute Capacity for that resource, the request may be submitted in the Day-Ahead Market or Real-Time Market.

- (2) **Approval.** The CAISO will grant the request if it meets the requirements in Sections 40.9.3.6.25(b)(1) and 40.9.3.6.3(c) and the alternate resources are either pre-qualified, or are not pre-qualified but are located in the same Local Capacity Area as the Resource Adequacy Resource.

(c) **Non-Local Capacity Area Resources**

- (1) **Request.** To use RA Substitute Capacity from multiple resources, the Scheduling Coordinator for RA Capacity other than Listed Local RA Capacity~~a non-Local Capacity Area Resource Adequacy Resource~~ on a ~~Forced Outage or de-rate~~Outage must submit a timely substitution request in the Day-Ahead Market or the Real-Time Market in accordance with Section 40.9.3.6.3(c).
- (2) **Approval.** The CAISO will grant the request if all of the alternate resources meet the requirements in Sections 40.9.3.6.25(c)(1) and 40.9.3.6.3(c).

(d) **External Resources**

- (1) **Request.** To use multiple Dynamic System Resources, Non-Dynamic System Resources, NRS-RA Resources, or Pseudo-Ties as RA Substitute Capacity, the Scheduling Coordinator for a Resource Adequacy Resource that has a ~~Forced Outage or de-rate~~n Outage must submit a timely substitution request in the Day-Ahead Market in accordance with Section 40.9.3.6.3(c).
- (2) **Approval.** The CAISO will grant the request if the alternate resources are external to the CAISO Balancing Authority Area (including Pseudo-Ties), and the Scheduling Coordinator of each alternate resource has an adequate available import allocation at the resource's Scheduling Point to provide the RA Substitute Capacity, and meet the requirements in Sections 40.9.3.6.5e(d)(1) and 40.9.3.6.3(b).

(e) **Flexible RA Capacity**

- (1) **Request.** To use RA Substitute Capacity from multiple resources, the Scheduling Coordinator for a resource providing Flexible RA Capacity on a Forced Outage ~~or de-rate~~ must submit a timely substitution request in the Day-Ahead Market or the Real-Time Market and the alternate resources must be located in the CAISO Balancing Authority Area, which does not include a Pseudo-Tie of a Generating Unit or a Resource-Specific System Resource.
- (2) **Approval.** The CAISO will grant the request if the alternate resources meet the requirements in Sections 40.9.3.6.~~25~~(d)(1) and 40.9.3.6.~~3~~(c).

**40.9.3.6.~~36~~** **Multiple Substitution by One Resource.** The Scheduling Coordinator for a resource already providing RA Substitute Capacity may provide RA Substitute Capacity for one or more additional Resource Adequacy Resources on a ~~Forced Outage or de-rate~~ Outage, subject to approval by the CAISO pursuant to Section 40.9.3.6.~~44~~ or 40.9.3.6.~~25~~.

**40.9.3.6.~~47~~** **Resource Adequacy Obligation.** To the extent a resource provides RA Substitute Capacity, the resource must meet and comply with all requirements in Section 40 applicable to RA Substitute Capacity for the duration of the substitution; except that RA Substitute Capacity shall be released from this obligation and the substitution requirements in Section 40.9 –

- (a) at the end of the approved substitution period; or
- (b) upon request by either the Scheduling Coordinator for the resource on ~~Forced Outage~~ or the Scheduling Coordinator for the substitute resource, and approval by the other Scheduling Coordinator, in accordance with the process set forth in the Business Practice Manual;

**40.9.3.6.~~58~~** **Treatment of Unbid Capacity.** If the Scheduling Coordinator for RA Substitute Capacity does not submit Bids or Self-Schedules for all or a portion of that capacity in accordance with Section 40.6 or 40.10.6, the CAISO --

- (1) will treat the unbid capacity as unavailable for purposes of Section 40.9; and

- (2) will reflect that unavailability in the RAAIM availability calculation for the Resource Adequacy Resource providing the RA Substitute Capacity.

#### **40.9.3.6.9 Substitution Opportunity Information**

In order to make information available to Market Participants pertinent to the provisions of this Section 40.9.3.6, the CAISO will:

- (a) Annually post on the CAISO Website the due dates for each month of the following Resource Adequacy compliance year the various submissions the CAISO requires under the Resource Adequacy program; and
- (b) Provide the opportunity for Market Participants to post and view information on an electronic bulletin board about non-Resource Adequacy Capacity that may be needed or available as RA Substitute Capacity in the bilateral market. Use of the bulletin board is voluntary and is for informational purposes only.

#### **40.9.4 Availability Assessment**

- (a) The CAISO shall determine a resource's monthly average availability on a percentage basis, based on --
  - (1) the availability assessment of the resource's minimum daily availability of local and/or system Resource Adequacy Capacity under Section 40.9.3.1, Flexible RA Capacity under Section 40.9.3.2, and overlapping Resource Adequacy commitments under Section 40.9.3.3, in the Day-Ahead Market and Real-Time Market;
  - (2) including the capacity, duration, and must-offer requirement for local and/or system Resource Adequacy Capacity or Flexible RA Capacity on ~~an a-Forced Outage~~Outage, except to the extent the resource provides RA Substitute Capacity for the outage in accordance with Section 40.9.3.6, the Outage is approved by the CAISO without requiring RA Substitute Capacity under other

authority of Section 9 or Section 40, or the Forced Outage is excluded from RAAIM under Section 40.9.3.~~54~~; and

- (3) including the capacity, duration, and must-offer requirement for any RA Substitute Capacity, ~~RA Replacement Capacity,~~ or CPM Capacity the resource is committed to provide.; ~~and~~

~~(4) —excluding the Maintenance Outages specified in Section 40.9.3.4.~~

- (b) If the resource's minimum daily availability is the same in the Day-Ahead Market and the Real-Time Market, the CAISO will use the availability in the Real-Time Market in the calculation of the monthly average availability.
- (c) If the resource is committed to provide local and/or system RA capacity and Flexible RA Capacity in a month, but does not provide both for the full month, the CAISO prorates the number of days that local and/or system Resource Adequacy Capacity and Flexible RA Capacity was provided against the total number of days in the month.

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#### ~~40.10.2.3 — Default Allocation Methodology~~

~~If a Local Regulatory Authority does not provide to the CAISO by the deadline established in the relevant Business Practice Manual a methodology for allocating 100% of the Local Regulatory Authority's flexible RA requirement, as determined pursuant to Section 40.10.2, to the Load Serving Entities under the Local Regulatory Authority's jurisdiction, then the CAISO will utilize the CAISO default allocation methodology. The CAISO default allocation methodology is the same methodology as defined in 40.10.1 with two exceptions: (1) the CAISO will perform the allocation for each LSE within the LRA; and (2) if a LSE's contribution to the three-hour net load ramp is less than 1 MW in all 12 months of a calendar year, then the CAISO will allocate 0 MW to that LSE for all 12 months of that year.~~

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#### 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 in 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. 3).
  - (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.

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#### **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.
- (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, but need not identify the flexible resource adequacy categories; 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 only if the Local Regulatory Authority has established its own flexible capacity requirement, show that the Load Serving Entity has met the total monthly requirement determined by the Local Regulatory Authority within the minimum or maximum quantity for each Flexible Capacity Category required by the Local Regulatory Authority, if applicable;
  - (3) 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 in which the Flexible RA Capacity will be provided; and
  - (4) 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 ~~44-30~~ 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 either: (i) a discrepancy between its monthly LSE Flexible RA Capacity Plan and the monthly Supply Plan of a Resource Adequacy Resource providing that Load Serving Entity with Flexible RA Capacity; or (ii) a deficiency in how much Flexible RA Capacity was provided on the monthly LSE Flexible RA Capacity Plan. ~~an error in the plan.~~ The CAISO will not accept any revisions to a monthly LSE Flexible RA Capacity Plan from ~~40~~ 30 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.

#### 40.10.5.1.1 Load-Following MSS

- (1) Each Load-following MSS Load Serving Entity for which the CAISO has calculated an allocable share of the Flexible Capacity Need under Section 40.10.2.2 must submit

annual and monthly LSE Flexible RA Capacity Plans pursuant to this Section 40.10.5.1 to identify the Flexible RA Capacity it is using to satisfy such requirement.

- (2) The Load-following MSS must increase the Flexible RA Capacity in its monthly plan by the MW amount of Capacity for the Variable Energy Resources shown in the information required pursuant to Section 40.10.1.2 but not included in the current MSS resource portfolio for that month.

#### **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 Adequacy Resource may, at any time from 45 days through 30 days in advance of the relevant month, revise its monthly Flexible RA Capacity Plan to correct a discrepancy between its

monthly Flexible RA Capacity Plan and a Resource Adequacy Plan of a Load Serving Entity for which that Resource Adequacy Resource is providing Flexible RA Capacity. The CAISO will not accept any revisions to a monthly Flexible RA Capacity Plan less than 30 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.

~~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. 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.

(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 Cumulative Deficiency.**

(1) The CAISO will evaluate the annual LSE Flexible RA Capacity Plans of all Load Serving Entities on a cumulative basis 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 cumulative 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, meets the applicable monthly Flexible Capacity Need determined by the CAISO pursuant to Section 40.10.1 or whether a cumulative 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 requirement for the base ramping Flexible Capacity Category determined by the CAISO pursuant to Section 40.10.1.5 or whether a cumulative 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.

#### **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; 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~~42 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~~30 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~~-discrepancy 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 ~~42~~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 ~~44~~30 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~~A~~.

**40.10.5.6 LRA Deficiency.**

- (a) **Finding and Notification.** If the CAISO's evaluation under Section 40.10.5.3(c) finds a cumulative deficiency in Flexible RA Capacity, the CAISO will --

- (1) identify each Local Regulatory Authority that did not meet its allocable share of the Flexible Capacity Need using the cumulative amount of Flexible RA Capacity that the Local Regulatory Authority's jurisdictional Load Serving Entities included in their annual and monthly Flexible RA Capacity Plans in total and, for the monthly Flexible RA Capacity Plans, in each Flexible Capacity Category;
  - (2) identify each Load Serving Entity that: (i) is subject to the jurisdiction of a Local Regulatory Authority that did not meet its allocable share of the Flexible Capacity Need under Section 40.10.5.6~~37~~ and (ii) did not include sufficient Flexible RA Capacity in an annual or monthly plan to meet its allocated Flexible RA Capacity Requirement or did not meet the monthly requirement within the minimum or maximum quantity, as applicable, for each Flexible Capacity Category, based on the allocation methodology of the Local Regulatory Authority if it has established its own methodology for allocating the Flexible Capacity Need to its jurisdictional Load Serving Entities;
  - (3) notify each Local Regulatory Authority identified under Section 40.10.5.6(a)(1) and the Scheduling Coordinator for each Load Serving Entity identified under Section 40.10.5.6(a)(2) of the cumulative deficiency in an attempt to resolve any deficiency in accordance with the procedures set forth in the Business Practice Manual; and (4) provide the notice at least ~~25~~42 days in advance of the first day of the month covered by the plan and include the reasons the CAISO believes a cumulative deficiency exists.
- (b) **Resolved Deficiency.** If the CAISO provides a notice of cumulative deficiency under Section 40.10.5.6(a), and the deficiency is resolved, the Scheduling Coordinator for the Load Serving Entity shall demonstrate, no less than ~~44~~30 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.
- (c) **Unresolved Deficiency.** If the CAISO provides a notice of deficiency under Section 40.10.5.6(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 43A.

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#### **43A.2.1.1 Annual Resource Adequacy Plan**

Where a Scheduling Coordinator fails to demonstrate in an annual Resource Adequacy Plan, submitted separately for each represented LSE, procurement of each LSE's share of Local Capacity Area Resources (irrespective of status as Listed Local RA Capacity), as determined in Section 40.3.2 for each month of the following Resource Adequacy Compliance Year, the CAISO shall have the authority to designate CPM Capacity; provided, however, that the CAISO shall not designate CPM Capacity under this Section 43A.2.1.1 until after the Scheduling Coordinator has had the opportunity to cure the deficiency set forth in Section 40.7. The CAISO's authority to designate CPM Capacity under this Section 43A.2.1.1 is to ensure that each Local Capacity Area in a TAC Area in which the LSE serves Load has Local Capacity Area Resources in the amounts and locations necessary to comply with the Local Capacity Technical Study criteria provided in Section 40.3.1.1, after assessing the effectiveness of Generating Units under RMR Contracts, if any, and all Resource Adequacy Resources reflected in all submitted annual Resource Adequacy Plans and any supplements thereto, as may be permitted by the CPUC, Local Regulatory Authority, or federal agency and provided to the CAISO in accordance with Section 40.7, whether or not such Generating Units under RMR Contracts and Resource Adequacy Resources are located in the applicable Local Capacity Area.

#### **43A.2.1.2 Monthly Resource Adequacy Plan**

Where a Scheduling Coordinator fails to demonstrate in a monthly Resource Adequacy Plan, submitted separately for each represented LSE, procurement of each LSE's share of Local Capacity Area Resources (irrespective of status as Listed Local RA Capacity), as determined in Section 40.3.2 for the reported month, the CAISO shall have the authority to designate CPM Capacity; provided, however, that the CAISO shall not designate CPM Capacity under this Section 43A.2.1.2 until after the Scheduling Coordinator has had the opportunity to cure the

deficiency as set forth in Section 40.7. In no case is the CAISO authorized to designate CPM Capacity under this Section 43A.2.1.2 solely because a monthly Resource Adequacy Plan demonstrates procurement of a Local Capacity Area Resource that is on a Maintenance Outage at some point during the applicable month. [A4] The CAISO's authority to designate CPM

Capacity under this Section 43A.2.1.2 is to ensure that each Local Capacity Area in a TAC Area in which the LSE serves Load has Local Capacity Area Resources in the amounts and locations necessary to comply with the Local Capacity Technical Study criteria provided in Section 40.3.1.1, after assessing the effectiveness of all Generating Units under RMR Contracts, if any, and all Resource Adequacy Resources reflected in all submitted monthly Resource Adequacy Plans and any supplements thereto, as may be permitted by the CPUC, Local Regulatory Authority, or federal agency and provided to the CAISO in accordance with Section 40.7.

#### **43A.2.2 Collective Deficiency In Local Capacity Area Resources**

The CAISO shall have the authority to designate CPM Capacity where the Local Capacity Area Resources (irrespective of status as Listed Local RA Capacity) specified in the annual Resource Adequacy Plans of all applicable Scheduling Coordinators, after the opportunity to cure under Section 43A.2.2.1 has been exhausted, fail to ensure compliance in one or more Local Capacity Areas with the Local Capacity Technical Study criteria provided in Section 40.3.1.1, regardless of whether such resources satisfy, for the deficient Local Capacity Area, the minimum amount of Local Capacity Area Resources identified in the Local Capacity Technical Study, and after assessing the effectiveness of Generating Units under RMR Contracts, if any, and all Resource Adequacy Resources reflected in all submitted annual Resource Adequacy Plans, whether or not such Generating Units under RMR Contracts and Resource Adequacy Resources are located in the applicable Local Capacity Area. The CAISO may, pursuant to this Section 43A.2.2, designate CPM Capacity in an amount and location sufficient to ensure compliance with the Reliability Criteria applied in the Local Capacity Technical Study.

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#### **43A.2.3 SC Failure To Show Sufficient Resource Adequacy Resources**

The CAISO shall have the authority to designate CPM Capacity where a Scheduling Coordinator fails to demonstrate in an annual or monthly Resource Adequacy Plan, submitted separately for each represented LSE, procurement of sufficient Resource Adequacy Resources to comply with each LSE's annual and monthly Demand and Reserve Margin requirements under Section 40; provided that the CAISO shall not designate CPM Capacity under this Section 43A.2.3 until after the Scheduling Coordinator has had the opportunity to cure the deficiency as set forth in Section 40.7; provided further that the CAISO shall not designate CPM Capacity under this Section 43A.2.3 unless there is an overall net deficiency in meeting the total annual or monthly Demand and Reserve Margin requirements, whichever is applicable, after taking into account all LSE demonstrations in their ~~applicable annual~~ or monthly Resource Adequacy Plans. Furthermore, in no case is the CAISO authorized to designate CPM Capacity under this Section 43A.2.3 solely because a monthly Resource Adequacy Plan demonstrates procurement of a Resource Adequacy Resource that is on a Maintenance Outage at some point during the applicable month.

[A5]

\* \* \*

#### **43A.2.7.2 Designation**

After the opportunity to resolve the cumulative 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. In no case, however, is the CAISO authorized to designate CPM Capacity under this Section 43A.2.7.2 solely because a monthly Resource Adequacy Plan demonstrates procurement of a Flexible RA Capacity resource that is on a Maintenance Outage at some point during the applicable month. [A6]

\* \* \*

#### **43A.4.2.2 Minimizing the Overall Cost of Meeting the Reliability Need**

Once the CAISO has identified the pool of resources that can meet the designation criteria, the CAISO shall then designate Eligible Capacity from that pool of resources in order to minimize the overall cost of meeting the designation criteria. Aside from considering the respective offer prices from the Eligible Capacity, as part of this cost minimization the CAISO also may consider: the quantity of a resource's available Eligible Capacity, based on a resource's PMin, relative to the remaining amount of capacity needed; and the quantity of a resource's available Eligible Capacity, based on outages and ~~replacement or~~ substitute daily RA Capacity.

For a potential Exceptional Dispatch CPM, the CAISO also shall consider the overall costs to the CAISO of issuing the Exceptional Dispatch to RA Capacity rather than to Eligible Capacity. If the CAISO determines it would minimize overall costs to issue the Exceptional Dispatch to RA Capacity, then the CAISO shall issue the Exceptional Dispatch to RA Capacity and not designate Eligible Capacity as CPM Capacity to meet the designation criteria.

If capacity would receive a CPM designation based on the cost minimization criteria but the resource from which the capacity would be provided faces use limitations such that the capacity, in the CAISO's reasonable discretion, poses the risk of being unavailable to fully meet the reliability need creating the CPM event, then the CAISO may, at its reasonable discretion and giving due regard for meeting cost minimization considerations, not grant that capacity a CPM designation and instead grant the designation to the next-best capacity at meeting the CAISO cost minimization process defined in this Section 43A.4.2.2. In exercising this discretion, the CAISO shall not unduly discriminate against resources with use limitations.

Additionally, if capacity would receive a CPM designation based on the cost minimization criteria but the resource from which the capacity would be provided is already going to be RA Capacity at some point during the CPM designation period and, in the CAISO's reasonable discretion, poses the risk of the capacity being unavailable fully to meet the reliability need creating the need for a CPM designation, then the CAISO may, at its reasonable discretion and giving due regard for meeting cost minimization considerations, not grant that capacity a CPM designation and instead grant the designation to the next-best capacity at meeting the CAISO cost minimization process defined in this Section 43A.4.2.2.

\* \* \*

#### **43A.8.8 Allocation of Flexible Capacity CPM 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 cumulative 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 included in their monthly Flexible RA Capacity Plans for each Flexible Capacity Category.

(2) The CAISO will calculate the total amount of Flexible RA Capacity included in the annual and monthly Flexible RA Capacity Plans collectively for all Load Serving Entities within the Local Regulatory Authority, 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 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 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, meets or exceeds the applicable Flexible Capacity Need allocated to their Local Regulatory Authority, the CAISO will not allocate any of the Flexible Capacity CPM costs to the Scheduling Coordinators for those Load Serving Entities.

(2) If the 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, and that Local Authority has not established its own methodology for allocating the Flexible Capacity Need to its jurisdictional Load Serving Entities, the CAISO will allocate the Flexible Capacity CPM costs proportionately to the Scheduling Coordinator of each jurisdictional Load Serving Entity that failed to meet its procurement obligation.

(c) **Allocation by Local Regulatory Authority Method.** If Load Serving Entities jurisdictional to a Local Regulatory Authority have a cumulative deficiency under Section 43A.8.8(a) 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 Flexible Capacity CPM 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. If the Local Regulatory Authority does not notify the CAISO of its allocation method by the deadline established in the relevant Business Practice Manual, then the CAISO allocates Flexible Capacity CPM costs using its default allocation methodology under Section 43A.8.8(b)(2).<sup>[A7]</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 43A.2.7.1 --

(1) will 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. |

[A8]<sup>[A9]</sup>

\* \* \*

## Appendix A

### Master Definition Supplement

#### Committed RA Capacity

Capacity that is either RA Capacity, Flexible RA Capacity, RA Substitute Capacity, ~~RA Replacement Capacity~~, CPM Capacity, or Flexible Capacity CPM.

**Non-Specified RA Replacement Capacity [Not Used]**

~~Capacity the Load Serving Entity procured that is capable of providing Resource Adequacy Capacity, but not designated as Resource Adequacy Capacity in the Load Serving Entity's monthly Resource Adequacy Plan for the month.~~

**- Local Capacity Area Resource Deficiency**

The monthly difference in MW between any applicable Local Capacity Area ~~Resource~~ requirements for an LSE as established pursuant to Section 40.3.2 and the quantity of monthly MW shown in the ~~LSE's LSE's~~ Resource Adequacy Plan.

**- Local Capacity Area Resources**

Resource Adequacy Capacity from a Generating Unit listed in the technical study or Participating Load or Proxy Demand Resource or Reliability Demand Response Resource that is located within a Local Capacity Area capable of contributing toward the amount of capacity required in a particular Local Capacity Area.

**Listed Local RA Capacity**

The capacity of Local Capacity Area Resources that, subject to resolution of a potential discrepancy as provided in Section 40.7(b), is identified on a Load Serving Entity's Resource Adequacy Plan and a supplier's corresponding Supply Plan as being obligated (for the purposes of sections 40.9.3.6.7 and 40.9.3.6.8) to provide RA Substitute Capacity from the same Local Capacity Area as the Listed Local RA Capacity.

**Off-Peak Opportunity RA Maintenance Outage**

A Maintenance Outage at a Resource Adequacy Resource that is approved by the CAISO to be initiated and completed during off-peak hours (as specified in the Business Practice Manual) without RA ~~Replacement Substitute~~ Capacity for the Resource Adequacy Capacity on ~~the outage or de-rate~~ Outage.

**RA Maintenance Outage With ~~Replacement~~ Substitution**

A Maintenance Outage, or change to an Approved Maintenance Outage, at a Resource Adequacy Resource that the CAISO receives ~~no more than forty-five days prior to the first day of the resource adequacy month for which the outage is requested and~~ no less than eight days prior

to the start of the outage and that includes RA ~~Replacement~~Substitute Capacity for the Resource Adequacy Capacity on ~~the outage or de-rate~~Outage.

**RA Maintenance Outage Without ~~Replacement~~Substitution**

A Maintenance Outage, or change to an Approved Maintenance Outage at a Resource Adequacy Resource that the CAISO receives ~~no more than forty-five days prior to the first day of the resource adequacy month for which the outage is requested and~~ no less than eight days prior to the start of the outage without RA ~~Replacement~~Substitute Capacity for the Resource Adequacy Capacity on ~~Outage~~the outage or de-rate.

**~~RA Replacement Capacity~~ [Not Used]**

~~Specified RA Replacement Capacity, Non-Specified RA Replacement Capacity, or capacity that is not Resource Adequacy Capacity, CPM Capacity, or capacity under an RMR contract, that replaces Resource Adequacy Capacity that is not operationally available to the CAISO due to a Maintenance Outage, an RA Maintenance Outage With Replacement or a Forced Outage approved under Section 9.3.1.3.3.1(c)(4).~~

**RA Substitute Capacity**

Capacity that ~~the CAISO permits under the CAISO Tariff substitutes to be substituted~~ for a Resource Adequacy Resource that is on ~~a Forced Outage or de-rate~~.

**Short-Notice Opportunity RA Maintenance Outage**

~~Forced Outage at a Resource Adequacy Resource accommodated by the CAISO on short notice without RA Replacement Capacity or~~ RA Substitute Capacity for the Resource Adequacy Capacity on ~~the outage or de-rate~~Outage.

**~~Specified RA Replacement Capacity~~ [Not Used]**

~~RA Replacement Capacity specified by the Load Serving Entity to replace specific Resource Adequacy Capacity included in its monthly Resource Adequacy Plan, for all or a portion of the period that the Resource Adequacy Capacity will not be operationally available to the CAISO during the month due to an Approved Maintenance Outage.~~

**~~System Total Available RA Capacity~~[Not Used]**

~~The system total Resource Adequacy Capacity provided in the Resource Adequacy Plans,~~



~~including the total MW of Specified RA Replacement Capacity accepted by the CAISO, less the total MW of unreplaced capacity in the Resource Adequacy Plans that is scheduled to take an Approved Maintenance Outage during the month.~~

\* \* \*