

Settlements & Billing

Configuration Guide: RA Maintenance Outage Replacement Backstop Capacity Allocation (CC 7887)

Version 5.0

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Configuration Guide for: CC 7887 CG - 7887 RA Maintenance Outage Replacement Backstop Capacity Allocation	Date: 09/05/12

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1. Purpose of Document

The purpose of this document is to capture the requirements and design specification for a Charge Code in one document.

2. Introduction

2.1 Background

The California Public Utilities Commission (“CPUC”) adopted the Resource Adequacy (RA) program in 2004 to help ensure that sufficient resources would be available to meet the expected peak demand. Its structure requires a unique cooperation between the ISO, CPUC, and other local regulatory authorities. Although specific elements of the program have changed since its inception, the basic construct has remained unchanged: it is a one-year forward and monthly demonstration that Load Serving Entities (LSEs) have sufficient capacity to meet their expected demand peak plus a planning reserve margin.

The RA program consists of an annual showing and monthly showings (as presented through annual and monthly RA plans). The annual showing is submitted by LSEs in October for the following year. LSEs are required to meet two main requirements. First, they are required to show they have procured 90% of their need for the 5 summer months of the following year. Additionally, if their load is located in any of the Local Capacity Regions which the ISO has defined, they must demonstrate 100% of their need for local capacity for the entire year. The local capacity showings can also count towards the system level. The annual showing is preliminary and the LSEs can change their resources when they submit their monthly showings.

In decision 11-06-022 (June 23, 2011), the CPUC decided that, starting with the 2013 RA year, it would no longer apply a replacement rule requiring its jurisdictional LSEs to provide replacement RA capacity under certain circumstances when RA resources were on planned outages. On September 20, 2012, the ISO filed at FERC a tariff amendment to modify its outage management practices and establish a new replacement requirement under which RA capacity on a planned Maintenance Outage may be replaced in order to maintain the RA reliability margin.

As part of the new RA capacity replacement mechanism, the ISO is establishing a provision to allow the ISO to procure RA Maintenance Outage Backstop Capacity for circumstances in which RA levels for the month are less than the established requirements, and for which replacement RA capacity has not been otherwise arranged for the month. The cost of the RA Maintenance Outage Replacement Backstop Capacity is allocated to the LSE for which the backstop capacity was procured.

The capacity payment is made to scheduling coordinator for the resource providing the RA Maintenance Outage Backstop Capacity or the Scheduling Coordinator for the Load Serving Entity that offered the non-specified RA capacity that was procured as the backstop capacity. The payment is equal to the *pro rata* (daily) CPM payment (as already defined in the ISO Tariff) multiplied by the number of days the resource provides

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replacement capacity, multiplied by the MW amount of backstop capacity provided net of any Maintenance Outages or Forced Outages. During the period the resource is providing replacement capacity it is subject to all RA rules and provisions, including the must-offer obligation and SCP Availability penalties.

Two new settlement charge codes have been defined to support the financial settlement of RA Maintenance Outage Backstop Capacity. For payment of RA Maintenance Outage Backstop Capacity, the ISO has defined charge code CC7886 – RA Maintenance Outage Backstop Capacity Settlement. LSEs for which the RA Maintenance Outage Backstop Capacity is procured would be allocated corresponding charges through settlement charge code CC 7887 – RA Maintenance Outage Backstop Capacity Allocation, where total CC 7887 charges would equal total CC 7886 payments in order for the ISO to remain revenue-neutral.

2.2 Description

The CC 7887 (RA Maintenance Outage Replacement Backstop Capacity Allocation) configuration provides for the allocation of settlement charges for RA Maintenance Outage Replacement Backstop Capacity that the ISO procures. When the ISO procures CPM capacity through a RA Maintenance Outage Replacement Backstop Capacity designation for a Trading Month, the predecessor CC 7886 calculation applies the CPM price and outputs for each Scheduling Coordinator to obtain the total dollar amount of the payment owed to the Scheduling Coordinator for the RA Maintenance Outage Replacement Backstop Capacity. Corresponding to each RA Maintenance Outage Replacement Backstop Capacity designation and payment is a charge that will be applied to the LSE for which the designated capacity was required due to a RA shortfall resulting from a Maintenance Outage that the ISO granted to one of the LSE's RA resources. The charge is computed and settled through the CC 7887 calculation for each LSE as the total of the payments for the RA Maintenance Outage Replacement Backstop Capacity designations that result from a RA shortfall attributable to the LSE's Maintenance Outages over the Trading Month for which the backstop capacity is designated.

3. Charge Code Requirements

3.1 Business Rules

Bus Req ID	Business Rule
1.0	This Charge Code shall provide an output on a daily basis.
2.0	The cost of the payments made for a RA Maintenance Outage Backstop Capacity designation will be allocated to the Scheduling Coordinator for the Load Serving Entity whose monthly Resource Adequacy Plan fails to have sufficient operationally available Resource Adequacy Capacity and RA Replacement Capacity to comply with the Load Serving Entity's applicable

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Bus Req ID	Business Rule
	forecasted monthly Demand and Reserve Margin.
2.1	Such costs will be assigned in proportion to the MW amount of RA Maintenance Outage Backstop Capacity attributable to the individual Load Serving Entity.
3.0	A settlement details file shall provide details for each daily settlement charge amount.
4.0	At the end of each resource adequacy month, the CAISO will provide to each Load Serving Entity that is allocated payment costs under Tariff Section 43.10.7 notice of the identity of the RA Resource that required backstop procurement and the identity of the RA Resource that provided the RA Maintenance Outage Backstop Capacity. (<i>Fact</i>)
5.0	Actual SCs are referenced by Business Associate ID (BA ID), and CAISO shall settle with SCs as Business Associates (BA) through their BA ID.
6.0	For adjustments to the Charge Code that cannot be accomplished by correction of upstream data inputs, recalculation or operator override, Pass Through Bill Charge adjustment shall be applied.

3.2 Predecessor Charge Codes

Charge Code/ Pre-Calc Name
CC7886 – RA Maintenance Outage Replacement Backstop Capacity Settlement

3.3 Successor Charge Codes

Charge Code/ Pre-calc Name
CC 4989 – Daily Rounding Adjustment Allocation

3.4 Inputs - External Systems

Input Req ID	Variable Name	Description
1.0	CPMDailyPrice _{md}	CPM Price (in \$ per KW-Year) times the ratio of 1 day to the number of days in the Trading Year.

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Input Req ID	Variable Name	Description												
		<p>The input, based on standing reference data, shall be specific to Trading Day d of Trading Month m for daily settlement runs,, as the input shall be defined in multiple Trading Day range segments over the period from 01/01/2013 through 02/15/2016 inclusively as follows:</p> <table> <tr> <th>Effective Start Date</th><th>Effective End Date</th><th>Value (\$/kW-day)</th></tr> <tr> <td>01/01/2013</td><td>02/15/2014</td><td>0.184932</td></tr> <tr> <td>02/16/2014</td><td>01/31/2015</td><td>0.194192</td></tr> <tr> <td>01/01/2016</td><td>02/15/2016</td><td>0.193661</td></tr> </table>	Effective Start Date	Effective End Date	Value (\$/kW-day)	01/01/2013	02/15/2014	0.184932	02/16/2014	01/31/2015	0.194192	01/01/2016	02/15/2016	0.193661
Effective Start Date	Effective End Date	Value (\$/kW-day)												
01/01/2013	02/15/2014	0.184932												
02/16/2014	01/31/2015	0.194192												
01/01/2016	02/15/2016	0.193661												
2.0	PTBBARAMaintenanceOutageBackstopCapacityChargeAdjustmentAmt _{BJmd}	PTB adjustment variable for the currently configured Charge Code, amount (\$) per Business Associate B, PTB ID J, for Trading Day d of Trading Month m .												

3.5 Inputs – Predecessor Charge Codes or Pre-calculations

Row #	Variable Name	Predecessor Charge Code/ Pre-calc Configuration / Description
1.0	BADailyResourceDesignatedPeriodShortLSERAMaintenanceOutageReplacementBackstopCapacityQuantity _{Bruu'UU'md}	<p>CC7886</p> <p>Total daily quantity (in MW) for designated RA Maintenance Outage Replacement Backstop Capacity associated with backstop RA-supplying Business Associate B, Resource ID r (for the RA-supplying resource), UDC ID u (for the RA-short LSE), Alternate BA ID u' (for the RA-short LSE), Settlement Billing Period that extends from Bill Period Start Date U' to Bill Period End Date U for Trading Day d of Trading Month m.</p>

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3.6 CAISO Formula

The monthly allocation of Resource Adequacy (RA) Maintenance Outage Replacement Backstop Capacity charges for each Business Associate, each Trading Month and each applicable capacity designation period of the Trading Month is derived according to the formulation of the following subsections.

3.6.1 $BADailyRAMaintenanceOutageReplacementBackstopCapacityAllocationAmount_{Bmd} =$

$$\sum_U \sum_{U'} BADailyTotalDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeAmount_{BUU'md}$$

3.6.2 $BADailyTotalDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeAmount_{BUU'md} =$

$$\sum_u \sum_{u'} BADailyDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeAmount_{Bu'u'UU'md}$$

3.6.3 $BADailyDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeAmount_{Bu'u'UU'md} =$

$$\sum_r BADailyResourceDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeAmount_{Bru'u'UU'md}$$

3.6.4 $BADailyResourceDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeAmount_{Bru'u'UU'md} =$

$$BADailyResourceDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeQuantity_{Bru'u'UU'md} * CPMDailyPrice_{md}$$

3.6.5 $BADailyRAMaintenanceOutageReplacementBackstopCapacityAllocationQuantity_{Bmd} =$

$$\sum_U \sum_{U'} BADailyTotalDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeQuantity_{BUU'md}$$

3.6.6 $BADailyTotalDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeQuantity_{BUU'md} =$

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$$\sum_u \sum_{u'} \text{BADailyDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeQuantity}_{\text{BUU'UU'md}}$$

3.6.7 $\text{BADailyDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeQuantity}_{\text{BUU'UU'md}} =$

$$\sum_r \text{BADailyResourceDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeQuantity}_{\text{BRUU'UU'md}}$$

3.6.8 $\text{BADailyResourceDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeQuantity}_{\text{BRUU'UU'md}} =$

ATTRIBUTE SWAP (B, u') On
 $\text{BADailyResourceDesignatedPeriodShortLSERAMaintenanceOutageReplacementBackstopCapacityQuantity}_{\text{BRUU'UU'md}}$

3.7 Outputs

Output Req ID	Name	Description
1.0	In addition to any outputs listed below, all inputs shall be included as outputs.	All inputs.
2.0	$\text{BADailyRAMaintenanceOutageReplacementBackstopCapacityAllocationAmount}_{\text{Bmd}}$	Total daily charge (\$) allocated to Business Associate B for settlement of designated RA Maintenance Outage Replacement Backstop Capacity for Trading Day d of Trading Month m .
3.0	$\text{BADailyTotalDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeAmount}_{\text{BUU'md}}$	Total daily charge (\$) allocated to Business Associate B for designated RA Maintenance Outage Replacement Backstop Capacity during Settlement Billing Period that extends from Bill Period Start Date U' to Bill Period End Date U for Trading Day d of Trading Month m .
4.0	$\text{BADailyDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeAmount}_{\text{BUU'UU'md}}$	Total daily charge (in \$) allocated to Business Associate B for all designated RA Maintenance Outage Replacement Backstop Capacity in association with Alternate BA ID u' (representing backstop RA-supplying Business Associate), UDC ID u (for the RA-short LSE), Settlement Billing

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Output Req ID	Name	Description
		Period that extends from Bill Period Start Date U' to Bill Period End Date U , and Trading Day d of Trading Month m .
5.0	BADailyResourceDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeAmount $B_{ruu'UU'md}$	Total daily charge (in \$) allocated to Business Associate B for all designated RA Maintenance Outage Replacement Backstop Capacity in association with Resource ID r (for the RA-supplying resource), Alternate BA ID u' (representing backstop RA-supplying Business Associate), UDC ID u (for the RA-short LSE), Settlement Billing Period that extends from Bill Period Start Date U' to Bill Period End Date U , and Trading Day d of Trading Month m .
6.0	BADailyRAMaintenanceOutageReplacementBackstopCapacityAllocationQuantity B_{md}	Total daily charge quantity (in MW) allocated to Business Associate B for settlement of designated RA Maintenance Outage Replacement Backstop Capacity for Trading Day d of Trading Month m .
7.0	BADailyTotalDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeQuantity $B_{UU'md}$	Total daily charge quantity (in MW) allocated to Business Associate B for designated RA Maintenance Outage Replacement Backstop Capacity during Settlement Billing Period that extends from Bill Period Start Date U' to Bill Period End Date U for Trading Day d of Trading Month m .
8.0	BADailyDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeQuantity $B_{uu'UU'md}$	Total daily charge quantity (in MW) allocated to Business Associate B for all designated RA Maintenance Outage Replacement Backstop Capacity in association with Alternate BA ID u' (representing backstop RA-supplying Business Associate), UDC ID u (for the RA-short LSE), Settlement Billing Period that extends from Bill Period Start Date U' to Bill Period End Date U , and Trading Day d of Trading Month m .
9.0	BADailyResourceDesignatedPeriodRAMaintenanceOutageReplacementBackstopCapacityChargeQuantity $B_{ruu'UU'md}$	Total daily charge quantity (in MW) allocated to Business Associate B for all designated RA Maintenance Outage Replacement Backstop Capacity in association with Resource ID r , Alternate BA ID u' (representing backstop RA-supplying

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Output Req ID	Name	Description
		Business Associate), UDC ID u (for the RA-short LSE), Settlement Billing Period that extends from Bill Period Start Date U' to Bill Period End Date U , and Trading Day d of Trading Month m .

4. Charge Code Effective Date

Charge Code/ Pre-calc Name	Document Version	Effective Start Date	Effective End Date	Version Update Type
CC 7887 – RA Maintenance Outage Replacement Backstop Capacity Allocation	5.0	01/01/13	Open	Documentation Edits and Configuration Impacted