



Lodi Energy Center Project Participant Committee Staff Report

AGENDA ITEM NO.: 12

Date: May 3, 2017

Meeting Date: May 8, 2017

To: Lodi Energy Center Project Participant Committee

Subject: Approval of updated Exhibit 8 of PMOA Agreement Schedule 1.00

Proposal

Approve updated Exhibit 8 to Schedule 1.00 of the PMOA to clarify the assessment of certain applicable charges and payments associated with the CAISO's Resource Adequacy Availability Incentive Mechanism ("RAAIM").

Background

NCPA and the LEC Project Participants executed the Lodi Energy Center Project Management and Operations Agreement (PMOA), which became effective on August 1, 2010. The PMOA contains multiple Schedules, which provide procedures and protocols, and guidelines regarding Project operations. Pursuant to the PMOA, Schedules can be revised, deleted or added from time to time based on then existing operating or market conditions, and subject to the approval of the Project Participant Committee (PPC), and with regard to certain Schedules, approval additionally by the NCPA Commission when such Schedules "... could be reasonably viewed as having an impact on other NCPA projects." (PMOA, Article 10).

Staff is recommending changes to Exhibit 8 of PMOA Agreement Schedule 1.00, which identifies CAISO settlement charge codes that are applicable to the LEC Project and their respective allocation basis to Project Participants. A completed "marked" version of the proposed Exhibit 8 is attached to this staff report reflecting two specific recommended changes described herein.

The CAISO recently implemented a redesigned resource adequacy mechanism, RAAIM, to better account for and measure the resource availability performance of system/local capacity and flexible capacity associated with resource adequacy obligations. Similar to the CAISO's previous resource adequacy mechanism, RAAIM includes provisions for a monthly non-availability charge and availability incentive payment for RA resources that perform below or above a defined threshold standard, respectively.

Consistent with the CAISO's accounting and settlement treatment for RAAIM, NCPA proposes to apply an 'overlap determination' rule that assesses each megawatt one time during each RA obligation hour to avoid double counting a participant's RA capacity. Accordingly, each LEC Participant's Resource Adequacy (RA) megawatts claimed for both flexible and system/local requirements are assessed under the flexible RA obligation, while all megawatts counted only toward the system/local requirements are assessed under the system/local RA obligation.

The tables below illustrate an example of the overlap determination rule for two LEC Project Participants:

- Participant A claims its share of the LEC Project capacity for 25 MW as flexible capacity and 30 MW as generic system capacity, and;
- Participant B claims its LEC Project share of 30 MW for use as only generic local capacity.

For participants who claim both flexible and generic RA capacity, NCPA will calculate each LEC Participant's Day Ahead Generic Capacity quantity as the greater of zero or the difference between its claimed generic and flexible capacity quantities indicated in the table below.

Participant	DA Max Generic Capacity Qty	Flexible Capacity Qty	DA Generic Capacity Qty max(0, DA Max Generic Qty - Flexible Qty)
Participant A	30	25	5
Participant B	30	0	30
	60	25	35

The adjusted generic quantities ensure that each participant's RA capacity is counted only one time for each assessment hour based on the higher quality flexible capacity, as indicated in the table below.

Participant	Flexible Capacity Qty	DA Generic Capacity Qty	Total RAAIM Obligation Qty	RAAIM Capacity %
Participant A	25	5	30	50.00%
Participant B	0	30	30	50.00%
Total	25	35	60	100.00%

Fiscal Impact

No significant costs will be incurred to implement the changes to the PMOA Schedules and funds are available in the NCPA budget to support the work associated with these contract updates.

Environmental Analysis

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary.

Respectfully submitted,



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Prepared by:



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Attachments

– Redline copy of Exhibit 8 of PMOA Agreement Schedule 1.00

EXHIBIT 8

Settlement of CAISO Charge Codes and Allocations to Participants

The Project will utilize NCPA's current CAISO SCID. The CAISO Settlement Charges shall be determined by the CAISO Tariff and is typically available on the CAISO's website as "ISO Market Charge Codes Matrix" that the CAISO updates periodically. Below is a subset of CAISO Market Charge Codes that apply to the Project.

Charge Code	Charge Code Name	Short Description	Allocation Basis
4512	GMC Inter-Scheduling Coordinator Trade Transaction Fee	Accounts for Inter-SC Trade (IST) Schedules in both the Day Ahead and Real Time Markets.	Allocated to the Project Participant/s who initiated the Trade based on unique scheduling SC IST name
4515	GMC Bid Transaction Fee	Accounts for the CAISO fee per bid segment for each Resource's final Clean Bids, Self Schedules, and Self Provisions.	Generation Entitlement Share
4560	GMC Market Services Charge	Designed to recover costs the CAISO incurs for implementing and running the Markets.	Generation Entitlement Share
4561	GMC System Operations Charge	Designed to recover costs the CAISO incurs for running the Grid in Real Time.	Generation Entitlement Share
6124	No Pay Spinning Reserve Settlement	Rescinds payments for Day Ahead, HASP, and Real Time Spinning Reserve Awards in the event the Resource does not fulfill the requirements associated with that payment.	Generation Entitlement Share
6486	Real Time Excess Cost for Instructed Energy Allocation	Allocates the excess cost payments to Scheduling Coordinators.	Generation Entitlement Share
6524	No Pay Regulation Up Settlement	Rescinds payments for Day Ahead, HASP, and Real Time Regulation Up Awards in the event the Resource does not fulfill the requirements associated with that payment.	Generation Entitlement Share
6624	No Pay Regulation Down Settlement	Rescinds payments for Day Ahead, HASP, and Real Time Regulation Down Awards in the event the Resource does not fulfill the requirements associated with that payment.	Generation Entitlement Share

Exhibit 8 to Agreement Schedule 1.00
 LEC Project Management and Operations Agreement
 Approved by PPC 10-10-2016
 Approved Commission and Effective 10-27-2016

Charge Code	Charge Code Name	Short Description	Allocation Basis
7077	Daily Flexible Ramp Up Uncertainty Allocation	Allocates Flexible Ramp Up Uncertainty amounts to resources based on the negative sum of the resource's Uncertainty Movement and Uninstructed Imbalance Energy	Generation Entitlement Share
7078	Daily Flexible Ramp Up Uncertainty Allocation	Allocates Flexible Ramp Up Uncertainty amounts to resources based on the negative sum of the resource's Uncertainty Movement and Uninstructed Imbalance Energy	Generation Entitlement Share
7087	Daily Flexible Ramp Down Uncertainty Allocation	Allocates Flexible Ramp Down Uncertainty amounts to resources based on the positive sum of the resource's Uncertainty Movement and Uninstructed Imbalance Energy	Generation Entitlement Share
7088	Monthly Flexible Ramp Down Uncertainty Allocation	Allocates Flexible Ramp Down Uncertainty amounts to resources based on the positive sum of the resource's Uncertainty Movement and Uninstructed Imbalance Energy	Generation Entitlement Share
7999	Invoice Deviation Interest Allocation	Accounts for interest charges to Scheduling Coordinators for time value of money between CAISO Invoices.	ESP Invoice Deviation Amount deltas
8830	Resource Adequacy Availability Incentive Mechanism Allocation	Represents a charge to any RA Resource that failed to meet the monthly Availability Standard minus the tolerance band of 2%. <u>Similar to the CAISO's 'overlap determination' rule, each LEC Participant's Resource Adequacy (RA) megawatts claimed for both flexible and system/local requirements are assessed under the flexible RA obligation, while all megawatts counted only toward the system/local requirements are assessed under the system/local RA obligation to prevent double counting.</u>	Pro-rata assessment to LEC Project Participants who claim LEC for RA Capacity for the applicable month

LEC ISO Net Energy Sales Charge Codes

Charge Code	Charge Code Name	Short Description	Allocation Basis
6011	Day Ahead Energy, Congestion, and Losses Settlement	Settles Day Ahead Schedules by paying for Supply and charging for Demand based upon the LMP at Resource Locations for each hour.	Generation Entitlement Share
6100	Day Ahead Spinning Reserve Capacity Settlement	Pays Scheduling Coordinators for awarded Spinning Reserve in the Day Ahead Market.	Generation Entitlement Share
6170	Real Time Spinning Reserve Capacity Settlement	Pays Scheduling Coordinators for awarded Spinning Reserve in the Real Time Market.	Generation Entitlement Share
6301	Day Ahead Inter-SC Trades Settlement Physical and Converted Physical Trades	Accounts for Energy Trades between Scheduling Coordinators in the Day Ahead Market. The "From" SC is charged the product of the valid quantity and the LMP. The "To" SC is paid the product of the valid quantity and the LMP. This could be a cost or revenue.	Allocated to the Project Participant/s who initiated the Trade based on unique scheduling SC IST name
6371	FMM Inter-SC Trades Settlements	Accounts for Energy Trades between Scheduling Coordinators during the Fifteen Minute Market (FMM). The "From" SC is charged the product of the valid quantity and the LMP. The "To" SC is paid the product of the valid quantity and the LMP. This could be a cost or revenue.	Allocated to the Project Participant/s who initiated the Trade based on unique scheduling SC IST name
6460	FMM IIE	FMM Instructed Imbalance Energy is the incremental or decremental energy to the Day Ahead Schedule. This could be a cost or revenue.	Generation Entitlement Share
6470	RTD IIE	Based upon the calculated energy expected to be produced or consumed as a result of responding to Real Time Dispatch Instructions. This could be a cost or revenue.	Generation Entitlement Share

Charge Code	Charge Code Name	Short Description	Allocation Basis
6475	Real Time Uninstructed Imbalance Energy	Accounts for deviations from a Resource's Instructed Imbalance Energy and Day Ahead Schedule. This could be a cost or revenue.	Generation Entitlement Share
6488	Exceptional Dispatch Uplift Settlement	Accounts for the Excess Cost Payment (Uplift) above the RT LMP to a Resource's Bid Price for exceptional dispatches that are used to mitigate or resolve congestion as a result of transmission-related modeling limitations in the Full Network Model.	Generation Entitlement Share
6500	Day Ahead Regulation Up Capacity Settlement	Pays Scheduling Coordinators for awarded Regulation Up in the Day Ahead Market.	Generation Entitlement Share
6570	Real Time Regulation Up Capacity Settlement	Pays Scheduling Coordinators for awarded Regulation Up in the Real Time Market.	Generation Entitlement Share
6600	Day Ahead Regulation Down Capacity Settlement	Pays Scheduling Coordinators for awarded Regulation Down in the Day Ahead Market.	Generation Entitlement Share
6620	Real Time Bid Cost Recovery Settlement	Pays Scheduling Coordinators an uplift to ensure start up costs, bid costs, and minimum load costs are able to be recovered related to Real Time Market.	Generation Entitlement Share
6630	Day Ahead Bid Cost Recovery	Pays Scheduling Coordinators an uplift to ensure start up costs, bid costs, and minimum load costs are able to be recovered related to Day Ahead Market.	Generation Entitlement Share
6670	Real Time Regulation Down Capacity Settlement	Pays Scheduling Coordinators for awarded Regulation Down in the Real Time Market.	Generation Entitlement Share
7070	Flexible Ramp Forecasted Movement	Pays or charges Scheduling Coordinators for the flexible ramp forecasted movement assessment inclusive of rescission This could be a cost or revenue.	Generation Entitlement Share
7071	Flexible Ramp Up Uncertainty Settlement	Pays Scheduling Coordinators for Flexible Ramp Up Uncertainty capability to resolve the Uncertainty Requirement	Generation Entitlement Share

Charge Code	Charge Code Name	Short Description	Allocation Basis
7081	Flexible Ramp Down Uncertainty Settlement	Pays Scheduling Coordinators for Flexible Ramp Down Uncertainty capability to resolve the Uncertainty Requirement	Generation Entitlement Share
7251	Regulation Up Mileage Settlement	Settles the quantity of frequency Regulation Up service provided by a Resource when accurately following a control signal from the CAISO.	Generation Entitlement Share
7261	Regulation Down Mileage Settlement	Settles the quantity of frequency Regulation Down service provided by a Resource when accurately following a control signal from the CAISO.	Generation Entitlement Share
7989	Invoice Deviation Interest Settlement	Accounts for interest payments to Scheduling Coordinators.	ESP Invoice Deviation Amount
8526	Generator Interconnection Process (GIP) Forfeited Deposit Allocation	This charge code is associated with the forfeited deposit amounts collected by the CAISO throughout the various stages of the GIP, which are then allocated to Scheduling Coordinators in proportion to their respective share of assessed Grid Management Charges (GMC) during the defined calendar year, consistent with CAISO Tariff section 37.9.4.	For the applicable defined calendar year, an LEC Participant's allocated CC 8526 amount is its ratio of assessed GMC amounts attributable to the Project and the total GMC amounts assessed to NCPA.
8831	Resource Adequacy Availability Incentive Mechanism Settlement	Represents a payment to any RA Resource that exceeds the monthly Availability Standard plus the tolerance band of 2.0% <u>Similar to the CAISO's 'overlap determination' rule, each LEC Participant's Resource Adequacy (RA) megawatts claimed for both flexible and system/local requirements are assessed under the flexible RA obligation, while all megawatts counted only toward the system/local requirements are assessed under the system/local RA obligation to prevent double counting.</u>	Pro-rata assessment to LEC Project Participants who claim LEC for RA Capacity for the applicable month.

Retired CAISO Charge Codes

Charge Code	Charge Code Name	Short Description	Allocation Basis	Effective Retirement Date
7050	Flexible Ramp Up Capacity Payment	Provides a payment to Resources that resolve the flexible ramping constraint and have been awarded Flexible Ramping Capacity.	Generation Entitlement Share	10/31/2016
7057	Monthly Flex Ramp Up Supply Cost Allocation Reversal	Sums the daily Flexible Ramp Supply Costs in charge code 7056 to a monthly total and reverses them. They are then reallocated in charge code 7058.	Generation Entitlement Share	10/31/2016
7056	Daily Flexible Ramp Cost Allocation	Accounts for the costs associated with the payments to Resources that resolve the flexible ramping constraint.	Generation Entitlement Share	10/31/2016
7058	Monthly Flexible Ramp Cost Allocation	Reallocates the monthly total flexible ramp supply costs reversed in charge code 7057 to suppliers based upon monthly gross negative supply deviations.	Generation Entitlement Share	10/31/2016
8820	Monthly Resource Adequacy Standard Capacity Product Availability Incentive Payment	Accounts for the CAISO's distribution of availability incentive payment for qualifying resources.	Pro-rata assessment to LEC Participants who claim LEC for RA Capacity for applicable month	10/31/2016
8824	Monthly Resource Adequacy Standard Capacity Product Non-Availability Charge	Accounts for the CAISO's non availability charges to any Resource Adequacy Resource which fails to meet the CAISO-defined Availability Standard.	Pro-rata assessment to LEC Participants who claim LEC for RA Capacity for applicable month	10/31/2016