

March 30, 2009

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

**Re: California Independent System Operator Corporation
Docket No. ER09-____ - 000
Tariff Revision**

Dear Secretary Bose:

Pursuant to Section 205 of the Federal Power Act¹ and Sections 35.11 and 35.13 of the Commission's regulations, the California Independent System Operator Corporation ("ISO") respectfully submits for filing an original and five copies of an amendment to the ISO Tariff that corrects technical differences between the ISO Tariff and Business Practice Manuals that are now fully integrated into ISO systems and those of the ISO's Market Participants.² The need for the amendment was identified through an audit conducted by PricewaterhouseCoopers ("PwC"), between the tariff language governing settlements in the ISO's Market Redesign and Technology Upgrade ("MRTU") markets and the configuration of the relevant charge codes. The ISO requests an effective date for these amendments of March 31, 2009, in order for the amendments to be effective on the first day of the implementation of the MRTU Day-Ahead Market ("MRTU *go-live*").

Two extra copies of this filing are also enclosed. Please stamp these copies with the date and time filed and return them to the messenger.

I. BACKGROUND

MRTU was developed over the course of a number of years by the ISO in conjunction with its stakeholders. Throughout the process, the Commission has

¹ 16 U.S.C. § 824d.

² Capitalized terms not otherwise defined herein are used in the sense given in the Master Definitions Supplement, Appendix A to the CAISO Tariff (also referred to as the MRTU Tariff).

provided extensive guidance.³ On September 21, 2006, the Commission conditionally accepted the tariff amendments for MRTU subject to certain compliance requirements.⁴ Prior to the implementation of MRTU, the ISO continued to enhance the MRTU design in a series of filings approved by the Commission. Throughout this time, the ISO also repeatedly evaluated and revised the charge codes to ensure their consistency with the MRTU Tariff and made several changes to the settlements tariff provisions for the same reason.⁵ Many of the improvements to the charge code configurations made during this time resulted from the evaluation of settlement statements and market outcomes, with the assistance of market participants, during the market simulation conducted over the past twelve months.

Given the confluence of the start of MRTU and the release of the PwC audit results on March 31, 2009, the ISO was not able to review these proposed amendments proposed with stakeholders before making this filing. However, as discussed further below, the proposed tariff amendments are consistent with the content of the configuration of the settlements charges and payments as reflected in the Business Practice Manual for Billing and Settlements, which have been reviewed by stakeholders prior to and throughout market simulation and have benefited from many improvements recommended by stakeholders.

In accordance with Section 11.29.5.4 of the MRTU Tariff, the ISO engaged PwC to provide an audit opinion confirming whether the Settlements and Market Clearing (“SaMC”) software calculates quantities and prices in compliance with the Tariff. PwC is on track to issue its certified audit opinion regarding the SaMC software prior to the close of the first Day-Ahead Market on the MRTU *go-live* date. The ISO will issue a Market Notice with PwC’s certified audit opinion on March 31, 2009, after it is released, and will provide a copy of this Market Notice to the Commission.

The PwC audit will be based on the tariff that will be in effect as of March 31, 2009, which is the tariff under which the ISO will operate after MRTU go live.

³ See, e.g., *Cal. Indep. Sys. Operator Corp.*, 100 FERC ¶ 61,060 (2002); *Cal. Indep. Sys. Operator Corp.*, 105 FERC ¶ 61,140 (2003); *Cal. Indep. Sys. Operator Corp.*, 107 FERC ¶ 61,274 (2004); *Cal. Indep. Sys. Operator Corp.*, 112 FERC ¶ 61,013, *on reh’g*, 112 FERC ¶ 61,310, *order on reh’g and technical conference*, 113 FERC ¶ 61,151 (2005).

⁴ *Cal. Indep. Sys. Operator Corp.*, 116 FERC ¶ 61,274 (2006), *order on reh’g*, 119 FERC ¶ 61,076 (2007) (“September 2006 Order”).

⁵ See e.g., *Cal. Indep. Sys. Operator Corp.*, 123 FERC ¶ 61,285, at Ordering Paragraph (A) (2008) (order conditionally accepting the changes to the settlement provisions contained in the ISO’s August 3, 2007 MRTU Tariff compliance filing); *Cal. Ind. Sys. Operator Corp.*, 126 FERC 61,274 at PP 110, 119 (2009) (accepting, with conditions, ISO’s Clarification filing);

As a result, PwC's audit has had to factor in the changes made to the MRTU Tariff since originally filed on February 9, 2006, as well as the many changes made to the charge code configurations. The audit opinion is being finalized based on the inclusion in the MRTU Tariff of the changes proposed in this filing, which are in response to matters identified by PwC and for which the ISO is requesting a March 31, 2009, effective date.

Through the PwC audit, the ISO identified certain instances in which there are differences between the tariff provisions and the configuration guides used by the ISO and participants to code their settlement systems. As further discussed below, the ISO has determined that these differences are appropriately addressed by amendment of the tariff because the differences were due either to the omission of detail or to errors made in prior filings. As the Commission noted in accepting the ISO's readiness certification, the ISO committed to address any outstanding software and system variances that are needed for MRTU launch and that do not affect market participants' systems.⁶ The filing proposes to revise the settlement provisions of Section 11 of the MTRU tariff to correct those minor variances.

On March 13, 2009, the Commission accepted the ISO's certification of readiness to implement MRTU.⁷ The ISO is now on the eve of implementing MRTU on March 31, 2009, for the Day Ahead Market for the April 1, 2009 trading day. The proposed amendments are consistent with the MRTU policies and design approved by the ISO Board of Governors and by the Commission. Accordingly, the ISO has not sought additional Board approval regarding these provisions.

II. PROPOSED AMENDMENT

A. Ancillary Services Bid Costs in the Integrated Forward Market

Analysis of the PwC audit revealed that MRTU Tariff Section 11.8.2.1.6 includes a specification that would inappropriately eliminate the provision of bid cost recovery for downward Ancillary Services. This is inconsistent with both the configuration of the charge codes and the ISO's intent to provide Bid Cost recovery to all Ancillary Services procured in the Day-Ahead Market.⁸ Therefore, the ISO proposes changes to section 11.8.2.1.6 to eliminate this inconsistency.

⁶ *Id.* at P 75.

⁷ *Cal. Indep. Sys. Operator Corp.*, 126 FERC ¶ 61,221 (2009).

⁸ See e.g., Pre-Calc IFM Net Amount equation number 3.6.3 available on the ISO's website at <http://www.caiso.com/1b6a/1b6aa0cc64a46.doc>; September 2006 Order at PP 491, 493, and Ordering Paragraph (A) (2006) (order conditionally accepting the ISO's initial filing of the MRTU Tariff on February 9, 2006).

Specifically, Section 11.8.2.1.6, as currently stated in the MRTU Tariff, specifies that “[f]or any Settlement Interval, the IFM AS Bid Cost shall be the product of the IFM *upward* AS Award from each accepted IFM AS Bid and the relevant AS Bid Price, divided by the number of Settlement Intervals in a Trading Hour.” The term “upward” was inappropriately included in Section 11.8.2.1.6 in the August 3, 2007 filing when the ISO clarified that the tier 1 allocation of the IFM bid cost uplift in Section 11.8.6.4 was based on the amounts not covered by scheduled generation and *upward* Ancillary Services awards.⁹ However, while it was appropriate to make this clarification in 11.8.6.4, because otherwise downward Ancillary Service (e.g., regulation down) capacity awarded would be included to offset the load obligation exposure, it was erroneous to also make this change in 11.8.2.1.6, which specifies the bid cost recovery for Ancillary Services. Therefore, the ISO proposes deleting the term “upward” in 11.8.2.1.6 so that it is clear that all of the IFM awarded Ancillary Services are included in the IFM Bid Cost calculations.

B. Integrated Forward Market Bid Cost Recovery Market Revenue Calculation

Analysis of the PwC audit results revealed that the current Section 11.8.2.2 is inconsistent with the manner in which IFM market revenues are actually calculated in the configuration guides. Section 11.8.2.2 sets forth the calculation of market revenues used to offset the bid cost recovery eligible amounts for resources committed in the IFM. Section 11.8.2.2 fails to specify that the IFM market revenues are calculated based on actual delivered amount of Energy, which is the manner in which the amount of IFM market revenues for energy considered for this purpose is actually based, , as is the calculation of the bid cost recovery uplift amounts specified in Section 11.8.1.2.

In the configuration of charge code Pre-Calc IFM Net Amount,¹⁰ the IFM market revenues are each multiplied by a metered adjustment factor to reflect the non-payment for non-delivered energy. The application of the metered adjustment factor is consistent with the Commission’s September 21, 2006, Order in which the Commission required the removal of the Tolerance Band but provided that if the resources fall short of the day-ahead and real-time Dispatch Instructions the ISO should only guarantee recovery of cost associated with the Energy actually provided.¹¹ In eliminating the application of the tolerance band, the ISO implemented a pre-calculation – the Metered Energy Adjustment Factor – for the purpose of limiting the bid cost recovery uplift to delivered amounts only

⁹ California Independent System Operator Corporation Modifications to Market Redesign and Technology Upgrade Tariff, Docket Nos. ER06-615-011 and ER07-1257-000 (Aug. 3, 2007), Transmittal Letter at 50, and Attachment B.

¹⁰ See *Pre-Calc IFN Net Amount*, <http://www.caiso.com/1b6a/1b6aa0cc64a46.doc>.

¹¹ See *September 2006 Order* at P 516.

and made changes to a number of its tariff provisions to eliminate the Tolerance Band and instead provide that the guaranteed amounts are the delivered amounts.¹² The ISO should have made the same change in this section 11.8.2.2 at that time, to account for the same requirement in calculating the market revenues, but failed to do so. The charge code, however, was configured consistent with the September 21 order by removing the tolerance band and applying the Metered Energy Adjustment Factor instead to this amount. Therefore, as it has done in other parts of the Tariff such as Section 11.8.2.1, to account for this requirement, the ISO proposes to include the terms “delivered” before the applicable quantities on which the IFM market revenues Energy are based.

C. Congestion Charges for Qualified Self-Provided Ancillary Services at the Interties.

Analysis of the PwC audit revealed that the tariff did not discuss the application of a congestion charge for qualified Self-Provided Ancillary Services at the Interties, whereas charge codes 6710, 6720, 6750, 6711, 6715, 6721, 6725 and 6755, specify that to the extent that Self-Provision of Ancillary Services at the interties is permitted and the Self-Provision quantity exceeds the capacity rights under Existing Rights and Transmission Ownership Rights in the Day-Ahead, Hour-Ahead Scheduling Process and Real-Time Market, congestion charges do apply to qualified Self-Provision at the ties. Consistent with the configuration of the charge codes, the ISO is proposing amendments to Section 11.10.1.1.1 to account for the congestion charges that apply to qualified Self-Provided Ancillary Services at the interties above the participant’s contract entitlements.

Prior to the tariff changes submitted in the ISO’s August 3, 2007, MRTU filing, this additional language was not necessary because the tariff only permitted self-provision of Ancillary Services at the interties from capacity that was within the entitlements of an Existing Right, Converted Right or Transmission Ownership Right. Since any qualified Self-Provided Ancillary Services submitted pursuant to an Existing Right, Converted Right or Transmission Ownership Rights are entitled to the reversal of the congestion charges under the perfect hedge treatment, there is no application of a congestion charge for the capacity within the entitlements. Therefore, the lack of specification of a congestion charge for such schedules was immaterial.

In the August 3, 2007, MRTU filing, the ISO included in Section 8.1 the ability for Dynamic System Resources to also Self-Provide Ancillary Services at

¹² See e.g., *Cal. Indep. Sys. Operator Corp.*, 119 FERC ¶ 61,313, at PP 95-96 and Ordering Paragraph (A) (2007) (order conditionally accepting changes to section 11.8.2.1 contained in the ISO’s November 20, 2006 MRTU Tariff compliance filing).

the interties. This expansion of qualified Self-Provided Ancillary Services requires the specification charges for congestion at the interties for such capacity because it is now possible that some of the qualified self-provision at the interties exceeds the Existing Rights, Converted Rights or Transmission Ownership Rights entitlements or is not associated with a participant's right at all. The application of the charges for congestion to qualified Self-Provided Ancillary Services is consistent with the charge for congestion applied to all other imports of Ancillary Services at congested interties, that is, the shadow price at the congested intertie for the applicable market. Therefore, similarly to all other imports of Ancillary Services at congested Interties, the ISO proposes to include additional provisions specifying that congestion charges apply, but only for amounts associated with qualified Self-Provided Ancillary Services above any an Existing Right, Converted Right or Transmission Ownership Right entitlements in the Day-Ahead based on the applicable Shadow Price for the applicable Trading Hour. These changes are made to both Section 11.10.1.1.1, which deals with imports of Ancillary Services in the Day-Ahead Market, and to Section 11.10.1.3.1 for Ancillary Services in the Real-Time.¹³

D. Upward Ancillary Services Neutrality Allocation

Analysis of the PwC audit results revealed a difference between the language in Section 11.10.6, which specifies how the upward Ancillary Services Neutrality Allocation is allocated to all Scheduling Coordinators in proportion to their upward Ancillary Service Obligation, and the configuration specifications for this charge. Specifically, the pre-calculation for Ancillary Services specifies that this allocation is based on the upward Ancillary Services Obligation without incorporating Inter-Scheduling Coordinator Trades for Ancillary Services Obligation, which means it is the obligation amount before accounting for Inter-SC Trades for Ancillary Services; The tariff, however, says it is "net" of Inter-SC Trades. The use of the term "net" is problematic because it appears as though the Scheduling Coordinator's Inter-SC Trades for Ancillary Services will be subtracted from their obligation.¹⁴ However, this is not the intent. Therefore, the ISO proposes to modify this language so it is clear that it is the obligation before the Inter-SC Trade for Ancillary Services is applied.

¹³ It is important to note that because the ISO will not be procuring Ancillary Services at the interties in HASP for *go-live*, the is proposing to delete Section 11.10.2.1.2 (as discussed below) and, therefore, this specification is not necessary for qualified Self-Provided Ancillary Services at the interties in HASP.

¹⁴ This inaccurate language was included in the August 3, 2007, filing the ISO made changes to reflect that this allocation is based on the Scheduling Coordinator's upward Ancillary Services Obligation before any Inter-SC Trades of Ancillary Services are considered.

E. Deferral of Procurement of Incremental Ancillary Services in the Hour-Ahead Scheduling Process

On January 30, 2009, the Commission accepted the deferral of the ability to procure Ancillary Services in the Hour Ahead Scheduling Process (“HASP”) at the start of MRTU *go-live*.¹⁵ That order approved a number of proposed revisions that removed language for facilitating such procurement. In its review of the PwC audit results, the ISO has identified additional provisions that must be revised to make this deferral effective. Therefore, consistent with the January 30, 2009, Commission order, the ISO is proposing additional modifications to the following sections: 11.1.2, 11.10.1.2.1, 11.20.2, 11.10.2.1.2, 11.10.2.2.1, 11.10.3.1, 11.10.9, 11.16.1.

The ISO notes that the configuration guides will retain the ability to settle incremental Ancillary Services procured in HASP but they will not actually be producing any settlement outcomes. It is important to retain this configuration because the ISO anticipates that after the start of MRTU it will again file for the authority to procure Ancillary Services at the interties in HASP and the retention of these configuration guides will ensure an easier transition.

F. Allocation of IFM Bid Cost Recovery Uplift Tier 1 Rate

Analysis of the PwC audit results revealed that Section 11.8.6.4 lacked certain detail regarding the calculation of the IFM bid cost recovery uplift tier 1 allocation rate that would provide more clarity in the tariff if included. Specifically, Section 11.8.6.4 (i) provides that the hourly Net IFM Bid Cost Uplift is allocated to Scheduling Coordinators at a rate not to exceed the ratio of the Net IFM Bid Cost Uplift, which is the total amount of IFM bid cost recovery uplift to be allocated to Scheduling Coordinators, divided by the total amount of generation scheduled in the Day-Ahead Schedule and the amount of Ancillary services awarded for all Scheduling Coordinators. The ISO calculates the rate for tier 1 in this manner because the two tier allocation approach requires that load that is not sufficiently covered by generation and Ancillary Services supply in the IFM will be allocated the first portion of the Net IFM Bid Cost Uplift amount. To the degree that load is covered by scheduled generation and awarded Ancillary Services, any remaining amounts are then allocated to the rest of Measured Demand in tier 2.

As demonstrated in Dr. Farrokh Rahimi’s testimony submitted with the original tariff filing¹⁶ and in Charge Code 6636,¹⁷ the actual implementation of this rate is based on a denominator of the maximum of 1) the sum of all hourly IFM

¹⁵ See *Cal. Indep. Sys. Operator Corp.*, 126 FERC ¶ 61,081 (2009).

¹⁶ Prepared Direct Testimony of Farouk Rahimi, submitted as Exh. No. ISO-4 in the ISO’s February 9, 2006 filing in Docket No. ER06-615, at 217-28.

¹⁷ See <http://www.caiso.com/1b6a/1b6aa121652212.doc>.

Load Uplift Obligation for all Scheduling Coordinators in that Trading Hour or 2) the sum of all hourly Generation scheduled in the Day-Ahead Schedule and IFM upward AS Awards for all Scheduling Coordinators from ISO-committed Bid Cost Recovery Eligible Resources in that Trading Hour. Because the tariff says the rate is not to exceed the specified ratio, and the rate in the charge code and Dr. Rahimi's testimony describes the denominator of the rate as the *maximum* of two amounts, one of which is the amount that is specified as the denominator of the rate the tariff says is not to exceed, the charge code is consistent with the tariff because it is mathematically always the case that the rate will not exceed the ratio in the tariff. However, the ISO believes it will lead to less confusion if the actual ratio that the rate is not to exceed is specified in the tariff. Therefore, the ISO proposes an amendment to 11.8.6.4 that includes this additional detail.

G. Definition of Unaccounted for Energy

Through its review of the PwC audit results, the ISO noted that the definition for Unaccounted for Energy ("UFE") uses the term "Metered Demand" as opposed to "Measured Demand." The use of the term Metered Demand is confusing because it is not a defined term. The term Measured Demand is a defined term and is the term used in the MRTU Tariff to represent metered ISO Demand plus Real-Time Interchange Export Schedules, which is the amount "Metered Demand" was intended to represent in this definition. Therefore, the ISO proposes to change the Metered Demand to Measured Demand to eliminate any confusion.

H. Additional Clarifications

Analysis of the PwC audit results indicated that Section 11.10.1.3, which provides for the settlement of Ancillary Services in Real-Time was not specific as to the applicable Trading hour for which the applicable real-time price is calculated. Consistent with the configuration guide, the ISO is proposing to add that it is for the applicable Trading Hour in which the capacity is procured, and the ISO has made a similar change to Section 11.10.1.1 to include detail on the relevant time period.

Similarly, a review of the audit results reveals that in Section 11.10.9.1 requires that the ISO clarify the applicable price for which the rescission of undispatchable Ancillary Services. The ISO had indicated previously that it would use the lower of the Day-Ahead and the HASP shadow price. This statement did not account for Ancillary Services procured in Real-Time from Dynamic Resources and required further specification. However, because of the deferral of procurement of Ancillary Services in HASP at *go-live*, the ISO proposes to revise the section to provide further clarification that the price will be the lower of the Day-Ahead and the simple average of the fifteen minute Real-

Time shadow prices over the applicable Trading Hour at the corresponding intertie.

III. EFFECTIVE DATE

Pursuant to Section 35.11 of the Commission's regulations, the ISO requests that the Commission waive its notice requirements for the proposed amendment, accept it for filing, and permit it to become effective on March 31, 2009, the date of the implementation of MRTU, for the Day-Ahead Market for April 1, 2009. Good cause exists for granting this waiver in order that the corrected provisions be in effect to settle the Day-Ahead Market consistent with the MRTU design and the Commission's approvals.

IV. COMMUNICATIONS

The ISO requests that all correspondence, pleadings and other communications concerning this filing be served upon the following:

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pursuant to 18 C.F.R. § 203(b)(3).

V. SERVICE

The ISO has served this filing upon the California Public Utilities Commission, the California Energy Commission, and all parties with effective Scheduling Coordinator Service Agreements under the ISO Tariff.

VI. ATTACHMENTS

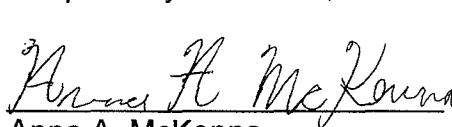
The following documents, in addition to this transmittal letter, support the instant filing:

- Attachment A Revised ISO Tariff sheets that incorporate the proposed changes described above
- Attachment B The proposed changes to the ISO Tariff shown in black-line format
- Attachment C Table of Proposed Tariff Changes.

VII. CONCLUSION

For all the foregoing reasons, the Commission should accept the proposed amendment to become effective on March 31, 2009. Please feel free to contact the undersigned if you have any questions concerning this matter.

Respectfully submitted,

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**Attachment A – Clean Sheets
Settlements Bucket Amendment Filing
4th Replacement CAISO Tariff
March 30, 2009**

- (d) The CAISO shall calculate, account for and settle all charges and payments based on the Settlement Quality Meter Data it has received, or, if Settlement Quality Meter Data is not available, based on the best available information or estimate it has received in accordance with the provisions in Section 10 and the applicable Business Practice Manuals; and
- (e) Day-Ahead Schedules, RUC Awards and AS Awards shall be settled at the relevant LMP, RUC Price, and ASMPs, respectively. HASP Intertie Schedules shall be settled at the relevant HASP Intertie LMP at the relevant Scheduling Point. All Dispatch Instructions shall be deemed delivered and settled at relevant Real-Time Market prices. Deviations from Dispatch Instructions shall be settled as Uninstructed Deviations.

11.1.1 [NOT USED]

11.1.2 The CAISO shall settle the following charges in accordance with this CAISO Tariff: (1) Grid Management Charge; (2) Bid Cost Recovery; (3) IFM charges and payments, including Energy and Ancillary Services; (4) RUC charges and payments; (5) Real-Time Market charges and payments, including Energy and Ancillary Services; (6) HASP charges and payments for Energy; (7) High Voltage Access Charges and TAC Transition Charges; (8) Wheeling Access Charges; (9) Voltage Support and Black Start charges; (10) Excess Cost Payments; (11) default interest charges; (12) CRR Charges and Payments, (13) Inter-SC Trades charges and payments; (14) neutrality adjustments; (15) FERC Annual Charges; (16) distribution of excess Marginal Losses; (17) miscellaneous charges and payments; and (18) Participating Intermittent Resource Fees.

11.8.2.1.4 IFM Pumping Bid Cost.

For Pumped-Storage Hydro Units and Participating Load only, the IFM Pumping Bid Cost for the applicable Settlement Interval shall be the Pumping Cost submitted to the CAISO in the IFM divided by the number of Settlement Intervals in a Trading Hour. The Pumping Cost is negative. The Pumping Cost is included in IFM Bid Cost computation for a Pumped-Storage Hydro Unit and Participating Load committed by the IFM to pump or serve Load if it actually operates in pumping mode or serves Load in that Settlement Interval. The IFM Energy Bid Cost for a Participating Load for any Settlement Interval is set to zero for actual Energy consumed in excess of the Day-Ahead Schedule for Demand. The IFM Pumping Cost for any Settlement Interval is zero if: (1) the Settlement Interval is in an IFM Self-Commitment Period for the Bid Cost Recovery Eligible Resource; or (2) the Bid Cost Recovery Eligible Resource is manually pre-dispatched under an RMR Contract prior to the Day-Ahead Market or the resource is flagged as an RMR Dispatch in the Day-Ahead Schedule for the applicable Settlement Interval.

11.8.2.1.5 IFM Energy Bid Cost.

For any Settlement Interval, the IFM Energy Bid Cost for Bid Cost Recovery Eligible Resources, except Participating Loads, shall be the integral of the relevant Energy Bid submitted to the IFM, if any, from the higher of the registered Bid Cost Recovery Eligible Resource's Minimum Load and the Day-Ahead Total Self-Schedule up to the relevant MWh scheduled in the Day-Ahead Schedule, divided by the number of Settlement Intervals in a Trading Hour. The IFM Energy Bid Cost for Bid Cost Recovery Eligible Resources, except Participating Loads, for any Settlement Interval is set to zero for any portion of the Day-Ahead Schedule that is not delivered from the otherwise Bid Cost Recovery Eligible Resource that has metered Generation below its Day-Ahead Schedule; any portion of the Day-Ahead Schedule that is actually delivered remains eligible for IFM Energy Bid Cost Recovery.

11.8.2.1.6 IFM AS Bid Cost.

For any Settlement Interval, the IFM AS Bid Cost shall be the product of the IFM AS Award from each accepted IFM AS Bid and the relevant AS Bid Price, divided by the number of Settlement Intervals in a Trading Hour.

11.8.2.2 IFM Market Revenue.

For any Settlement Interval in a CAISO IFM Commitment Period the IFM Market Revenue for a Bid Cost Recovery Eligible Resource is the algebraic sum of: (1) the product of the delivered MWh, in the relevant Day-Ahead Schedule in that Trading Hour where for Pumped-Storage Hydro Units and Participating Load operating in the pumping mode or serving Load, the MWh is negative, and the relevant IFM LMP, divided by the number of Settlement Intervals in a Trading Hour; and (2) the product of the IFM AS Award from each accepted IFM AS Bid and the relevant Resource-Specific ASMP, divided by the number of Settlement Intervals in a Trading Hour. For any Settlement Interval in a IFM Self-Commitment Period the IFM Market Revenue for a Bid Cost Recovery Eligible Resource is the algebraic sum of: (1) the product of the delivered MWh above the greater of Minimum Load and Self-Scheduled Energy, in the relevant Day-Ahead Schedule in that Trading Hour and the relevant IFM LMP, divided by the number of Settlement Intervals in a Trading Hour; and (2) the product of the IFM AS Award from each accepted IFM AS Bid and the relevant Resource-Specific ASMP, divided by the number of Settlement Intervals in a Trading Hour.

11.8.2.3 IFM Bid Cost Recovery Amounts for Metered Subsystems.

The IFM Bid Cost Recovery for MSS Operators differs based on whether the MSS Operator has elected gross or net Settlement.

11.8.2.3.1 MSS Elected Gross Settlement.

For an MSS Operator that has elected gross Settlement, regardless of other MSS optional elections (Load following or RUC opt-in or out), the IFM Bid Cost and the IFM Market Revenue are calculated similarly to non-MSS resources on an individual resource basis as described in Sections 11.8.2.1 and 11.8.2.2, respectively.

- (i) In the first tier, the hourly Net IFM Bid Cost Uplift is allocated to Scheduling Coordinators in proportion to their non-negative IFM Load Uplift Obligation, but with an IFM Bid Cost Uplift rate which is not to exceed the ratio of the hourly Net IFM Bid Cost Uplift for the Trading Hour divided by the maximum of 1) the sum of all hourly IFM Load Uplift Obligations for all Scheduling Coordinators in that Trading Hour or 2) the sum of all hourly Generation scheduled in the Day-Ahead Schedule and IFM upward AS Awards for all Scheduling Coordinators from CAISO-committed Bid Cost Recovery Eligible Resources in that Trading Hour. The IFM Load Uplift Obligation for each Scheduling Coordinator, including Scheduling Coordinators for Metered Subsystems regardless of their MSS optional elections (net/gross Settlement, Load following, RUC opt-in/out), is the difference between the total Demand scheduled in the Day-Ahead Schedule of that Scheduling Coordinator and the sum of scheduled Generation and scheduled imports from the Self-Schedules in the Day-Ahead Schedule of that Scheduling Coordinator, adjusted by any applicable Inter-SC Trades of IFM Load Uplift Obligations.
- (ii) In the second tier, Scheduling Coordinators, including Scheduling Coordinators for MSS Operators that have elected both to not follow their Load and gross Settlement, will be charged for an amount equal to any remaining hourly Net IFM Bid Cost Uplift for the Trading Hour in proportion to the Scheduling Coordinator's Measured Demand. Scheduling Coordinators for MSS Operators that have elected to either follow their Load or net Settlement, or both, will be charged for an amount equal to any remaining hourly Net IFM Bid Cost Uplift for the Trading Hour in proportion to their MSS Aggregation Net Measured Demand.

11.10.1.1 Ancillary Services in DAM.

Payments to Scheduling Coordinators with AS Awards shall be equal to the ASMP calculated as provided in Section 27.1.2 for each Ancillary Service for the applicable trading hour in which the capacity is procured multiplied by the quantity of the capacity awarded for the Ancillary Service in each of the Ancillary Service Regions for the applicable trading hour in which the capacity is procured. Suppliers with Self-Provided Ancillary Services are not eligible to receive payment for Ancillary Service Awards based on ASMPs; Self-Provided Ancillary Services are compensated at the user rate for the service being self-provided as described in Sections 11.10.2, 11.10.3 and 11.10.4.

11.10.1.1.1 Congestion Charges for Day-Ahead Intertie Ancillary Service Awards.

Suppliers of Day-Ahead Ancillary Services Awards and qualified Self-Provided Ancillary Services over the Interties also are charged for Congestion if the Ancillary Service Award or the qualified Self-Provided Ancillary Service is at a congested Scheduling Point. The charge shall be equal to the Shadow Price of the applicable congested Scheduling Point multiplied by the quantity of the Ancillary Service Award or the capacity of the qualified Self-Provided Ancillary Service for the Settlement Period; provided, however, that no such charge for Congestion will apply to any qualified Self-Provided Ancillary Service that is within the entitlement of an Existing Right, Converted Right or Transmission Ownership Right.

11.10.1.2 [NOT USED]

11.10.1.2.1 [NOT USED]

11.10.1.3 Ancillary Services Provided in Real-Time.

Suppliers of Ancillary Services from resources awarded in RTUC are paid a price equal to one-quarter of the fifteen (15) minute ASMP (in \$/MW/h) in each fifteen (15) minute interval of the applicable Trading Hour in which the capacity is procured for each Ancillary Service times the amount of the capacity awarded (MW) for the Ancillary Service in the relevant Ancillary Services Region for the applicable trading hour in which the capacity is procured. For each Ancillary Service, the ASMP is calculated as set forth in Section 27.1.2. Suppliers of Self-Provided Ancillary Services in the Real-Time Market are not eligible to receive payment using the ASMP; rather to the extent the self-provision is qualified it will be valued at the user rate for the relevant service (i.e., will either reduce the Ancillary Services Obligation or receive the user rate if it exceeds the Scheduling Coordinator's Ancillary Service Obligation) as described in Sections 11.10.2, 11.10.3 and 11.10.4.

11.10.1.3.1 Congestion Charges for Real-Time Intertie Ancillary Service Awards from Dynamic System Resources.

For each Settlement Period, the suppliers of Real-Time Ancillary Services Awards or qualified Self-Provided Ancillary Services at Scheduling Points for Dynamic System Resources shall be charged for Congestion and such charge shall be equal to the simple average of the fifteen (15) minute Shadow Prices at the applicable Scheduling Point for the applicable Trading Hour for the awarded or Self-Provided Ancillary Service multiplied by the quantity of the Ancillary Service Award for the capacity of the qualified Self-Provided Ancillary Service for the Settlement Period; provided, however, that no such charge for Congestion will apply to any qualified Self-Provided Ancillary Service that is within the entitlements of an Existing Right or Transmission Ownership Right.

11.10.1.6 Inadvertent Interchange between Balancing Authority Areas.

The CAISO shall calculate imbalances between scheduled, instructed and actual quantities of Energy provided based upon Meter Data obtained pursuant to Section 10. Schedules between Balancing Authority Areas shall be deemed as being delivered in accordance with Good Utility Practice. Dynamic Schedules shall be integrated over time through the Operating Hour and the MWh quantity obtained by such integration shall be deemed to be the associated scheduled Interchange for that Operating Hour. The difference between actual and scheduled Interchange shall then be addressed in accordance with the WECC and NERC inadvertent Interchange practices and procedures. Following this practice, all Dynamic Schedules for Ancillary Services provided to the CAISO from Dynamic System Resources in other Balancing Authority Areas shall be deemed delivered to the CAISO. The difference between the Energy requested by the CAISO and that actually delivered by the other Balancing Authority Area shall then be accounted for and addressed through the WECC and NERC inadvertent Interchange practices and procedures.

11.10.2 Settlement for User Charges for Ancillary Services.

The CAISO shall determine a separate hourly user rate for Regulation Down Reserve, Regulation Up Reserve, Spinning Reserve, and Non-Spinning Reserve purchased for each Settlement Period. The hourly user rates for Regulation Down, Regulation Up, Spinning Reserve, and Non-Spinning Reserve include the cost incurred by the CAISO across the Day-Ahead Market and the Real-Time Market to procure this service. In computing the user rate for each service the quantity (MW) and costs of any substituting Ancillary Service will be treated as if they are costs and MW associated with the Ancillary Service need they are being used to fulfill. Each rate will be charged to Scheduling Coordinators on a volumetric basis applied to each Scheduling Coordinator's obligation for the specific Ancillary Service concerned which it has not self-provided, as adjusted by any Inter-SC Trades of Ancillary Services.

Each Scheduling Coordinator's obligation for Regulation Down Reserve, Regulation Up Reserve, Spinning Reserve, and Non-Spinning Reserve shall be calculated in accordance with this Section 11.10.2, notwithstanding any adjustment to the quantities of each Ancillary Service purchased by the CAISO in accordance with Section 8.2.3.5. The cost of Voltage Support and Black Start shall be allocated to Scheduling Coordinators as described in Sections 11.10.7 and 11.10.8.

Ancillary Services Obligations for an individual Scheduling Coordinator (before taking into account Self-Provided Ancillary Services) or Inter-SC Trades of Ancillary Services) may be negative. Credits for such negative obligations will be in accordance with the rates calculated in this Section 11.10.2, except that a Scheduling Coordinator's credit shall be reduced pro rata to the extent the sum of the negative obligations of all Scheduling Coordinators with the negative Ancillary Services Obligation (before self-provision or Inter-SC Trade) exceeds the obligation of all Scheduling Coordinators with positive obligation net of Self-Provided Ancillary Services, as specified in Section 11.10.5 in any Settlement Period, the net procurement quantity of Regulation Up, Regulation Down, Spinning Reserve, or Non-Spinning Reserve purchased by the CAISO in the Day-Ahead Market and the Real-Time Market due to the operation of Section 8.2.3.5 is zero, then the user rate for that Ancillary Service type will be zero.

With respect to each Settlement Period, in addition to the user rates determined in accordance with this Section 11.10.2, each Scheduling Coordinator shall be charged an additional amount equal to its proportionate share, based on total purchases by Scheduling Coordinators of Regulation Down, Regulation Up, Spinning Reserve, and Non-Spinning Reserve of the amount, if any, by which (i) the total payments to Scheduling Coordinators pursuant to this Section 11.10.2 for the Day-Ahead Market and the Real-Time Market, exceed (ii) the total amounts charged to Scheduling Coordinators pursuant to this Section 11.10.2, for the Day-Ahead Market and the Real-Time Market. If total amounts charged to Scheduling Coordinators exceed the total payments to Scheduling Coordinators, each Scheduling Coordinator will be refunded its proportionate share, based on total purchases by Scheduling Coordinators of Regulation Down, Regulation Up, Spinning Reserve, and Non-Spinning Reserve.

With respect to each Settlement Period, in addition to Ancillary Service charges at the applicable user rates determined in accordance with this Section 11.10.2, each Scheduling Coordinator shall be charged additional neutrality adjustment amounts for each Ancillary Service type pursuant to Sections 11.10.2.4, 11.10.2.2.3, 11.10.3.3, and 11.10.4.3 and a neutrality adjustment amount for upward Ancillary Service types pursuant to Section 11.14.

11.10.2.1 Regulation Service.

Regulation Up Reserve and Regulation Down Reserve charges shall be calculated separately.

11.10.2.1.1 Regulation Down Reserve.

The charges a Scheduling Coordinator must pay for Regulation Down Reserve for each Settlement Period of the Trading Day are based upon the product of Scheduling Coordinator's hourly obligation for Regulation Down Reserve (MW) and the hourly user rate for Regulation Down Reserve (\$/MW).

11.10.2.1.2 Hourly User Rate for Regulation Down Reserve.

The hourly user rate for Regulation Down is the total Regulation Down Reserve Cost (\$) for each Settlement Period divided by the total Net Procurement of Regulation Down by the CAISO (MW) for each Settlement Period. The CAISO's Regulation Down Reserve Cost is equal to: (i) the revenues paid to the suppliers of the total awarded Regulation Down Reserve capacity in the Day-Ahead Market and Real-Time Market for the Settlement Period, minus, (ii) the payments rescinded in the Settlement Period due to the unavailability of the Regulation Down under any of the provisions of Section 8.10.8. The Net Procurement of Regulation Down Reserves is equal to: (i) the amount (MW) of total awarded Regulation Down Reserve capacity in the Day-Ahead Market and Real-Time Market for the Settlement Period, minus, (ii) the Regulation Down Reserve capacity associated with payments rescinded for the Settlement Period pursuant to any of the provisions of Section 8.10.8.

The CAISO's Regulation Up cost is equal to: (i) the revenues paid to the suppliers of the total awarded Regulation Up capacity in the Day-Ahead Market and Real-Time Market for the Settlement Period, minus, (ii) the payments rescinded in the Settlement Period due to the unavailability of the Regulation Up under any of the provisions of Section 8.10.8. The Net Procurement of Regulation Up is equal to: (i) the amount (MWs) of total awarded Regulation Up capacity in the Day-Ahead Market and Real-Time Market for the Settlement Period, minus, (ii) the Regulation Up capacity associated with payments rescinded for the Settlement Period, pursuant to any of the provisions of Section 8.10.8.

11.10.2.2.2 Hourly Net Obligation for Regulation Up.

Each Scheduling Coordinator's hourly net obligation for Regulation Up is determined as follows: (a) the Scheduling Coordinator's metered CAISO Demand multiplied by the Scheduling Coordinator's Ancillary Services Obligation percentage for Regulation Up, reduced by accepted Self-Provided Ancillary Services specified as Regulation Up, plus or minus any Regulation Up Reserve obligations for the hour acquired or sold through Inter-SC Trades of Ancillary Services. Each Scheduling Coordinator's Ancillary Services Obligation percentage for Regulation Up in that hour is equal to the total requirement for Regulation Down in that hour divided by the hourly metered CAISO Demand for that hour.

11.10.2.2.3 Regulation Up Neutrality Adjustment.

For each Settlement Period, the difference between the Regulation Up net requirement at the hourly Regulation Up user rate determined in Section 11.10.2.2.2 and the total revenue collected from all Scheduling Coordinators in the Regulation Up charge pursuant to Section 11.10.2.2.1 shall be allocated to all Scheduling Coordinators in proportion to their Regulation Up Reserve Obligation quantity. The Regulation Up net requirement is the Real-Time Regulation Up requirement net of the sum of effective qualified Regulation Up self-provision over all resources.

11.10.3 Spinning Reserves.

The charges a Scheduling Coordinator must pay for Spinning Reserves for each Settlement Period of the Trading Day are based upon the product of the Scheduling Coordinator's hourly obligation for Spinning Reserves (MW) and the hourly user rate for Spinning Reserves (\$/MW).

If the Scheduling Coordinator's Operating Reserve Obligation (before self provision or Inter-SC Trade of Spinning Reserve or Non-Spinning Reserve) is negative, the SC may be entitled to a credit rather than a charge. In that case, the quantity of the SC's negative Operating Reserve Obligation (before self provision and Inter-SC Trade) shall be multiplied by the Negative Operating Reserve Obligation Credit Adjustment Factor (NOROCFAF) computed for the Trading Hour as specified in Section 11.10.5.

11.10.3.1 Hourly User Rate for Spinning Reserves.

The hourly user rate for Spinning Reserves is the ratio of: 1) sum of the portion of Spinning Reserve Cost used to meet the spin requirement and the portion of Regulation Up cost that can substitute for Spinning Reserve and 2) the Net Procurement quantity of Spinning Reserves by the CAISO (\$/MW). The cost of Regulation Up substituting for Spinning Reserve is the user rate for Regulation Up multiplied by the quantity of Regulation Up used to satisfy the Spinning Reserve requirement.

The CAISO's Spinning Reserve Cost is equal to: (i) the revenues paid to the suppliers of the total awarded Spinning Reserve capacity in the Day-Ahead Market and Real-Time Market, minus, (ii) the payments rescinded due to either the failure to conform to Dispatch Instructions or the unavailability of the Spinning Reserves under Section 8.10.8. The Net Procurement of Spinning Reserves is equal to: (i) the amount (MWs) of total awarded Spinning Reserve capacity in the Day-Ahead Market and Real-Time Market, minus, (ii) the Spinning Reserve capacity associated with payments rescinded pursuant to any of the provisions of Section 8.10.8. The amount (MW) of awarded Spinning Reserve capacity includes the amounts (MW) associated with any Regulation Up Reserve capacity used as Spinning Reserve under Section 8.2.3.5.

11.10.4 Non-Spinning Reserves.

The charges an SC must pay for Non-Spinning Reserves for each Settlement Period of the Trading Day are based upon the product of SC's hourly obligation for Non-Spinning Reserves (MWs) and the hourly user rate for Non-Spinning Reserves (\$/MW).

If the Scheduling Coordinator's Operating Reserve Obligation (before self provision or Inter-SC Trade of Spinning Reserve or Non-Spinning Reserve) is negative, the Scheduling Coordinator may be entitled to a credit rather than a charge. In that case, the quantity of the Scheduling Coordinator's negative Non-Spinning Reserve Obligation (before self provision and Inter-SC Trade) shall be multiplied by the Negative Operating Reserve Obligation Credit Adjustment Factor (NOROCAF) computed for the Trading Hour as specified in Section 11.10.5.

11.10.4.1 Hourly User Rate for Non-Spinning Reserves.

The hourly user rate for Non-Spinning Reserves is calculated as the ratio of: i) the sum of the portion of the Non-Spinning Reserve Cost used to meet the Non-Spinning requirement and a portion of the Regulation Up and Spinning Reserve costs that can substitute for Non-Spinning Reserve and ii) the Net Procurement quantity of Non-Spinning Reserves by the CAISO (\$/MW). The CAISO's Non-Spinning Reserve Cost includes the costs associated with any Regulation Up Reserve or Spinning Reserve capacity used as Non-Spinning Reserve under Section 8.2.3.5.

The CAISO's Non-Spinning Reserve Cost is equal to: (i) the revenues paid to the suppliers of the total awarded Non-Spinning Reserve capacity in the Day-Ahead Market and Real-Time Market, minus, (ii) the payments rescinded due to either the failure to conform to CAISO Dispatch Instructions or the unavailability of the Non-Spinning Reserves under Section 8.10.8. The Net Procurement of Non-Spinning Reserves is equal to: (i) the amount (MWs) of total awarded Non-Spinning Reserve capacity in the Day-Ahead Market and Real-Time Market, minus, (ii) the Non-Spinning Reserve capacity associated with payments rescinded pursuant to any of the provisions of Section 8.10.8. The amount (MW) of

11.10.5 Negative Operating Reserve Obligation Credit Adjustment Factor (NOROCAF).

In exceptional cases, it may happen that the net total quantity of Operating Reserve Obligations of all Scheduling Coordinators in a Trading Hour after accounting for qualified self provision is negative. In this case the net negative Operating Reserve Obligation is not usable by the CAISO, since Self-Provided Ancillary Service is qualified before IFM based on CAISO's estimate of firm imports. In such a case, the negative Operating Reserve Obligations of all Scheduling Coordinators with negative Operating Reserve Obligation is reduced pro rata. This is done by computing the Negative Operating Reserve Obligation Credit Adjustment Factor (NOROCAF) as the lower of one (1) or the ratio of (a) net total quantity of Operating Reserve Obligations of all Scheduling Coordinators with positive Operating Reserve Obligation net of qualified self provision of Operating Reserves, but before any Inter-SC Trades of Ancillary Services, and (b) the sum of negative Operating Reserve Obligations of all Scheduling Coordinators with negative Operating Reserve Obligation before considering any Self-Provided Ancillary Services or Inter-SC Trade of AS.

11.10.6 Upward Ancillary Services Neutrality Adjustment.

For each Settlement Period the difference between the upwards Ancillary Service cost and the product of the total Ancillary Service net requirements at the relevant Ancillary Service user rate will be allocated to all Scheduling Coordinators in proportion to their upward Ancillary Service Obligation (before taking into consideration the Inter-SC Trades of Ancillary Services). The upwards Ancillary Service cost is the sum of the Regulation Up, Spinning Reserve and Non-Spinning Reserve cost described in Sections 11.10.2.2.1, 11.10.3.1 and 11.10.4.1. The Ancillary Service net requirement is the sum of the Real-Time Regulation Up net requirement in Section 11.10.2.2.3, Spinning Reserve net requirement in Section 11.10.3.3 and Non-Spinning Reserve net requirement in Section 11.10.4.3.

11.10.9 Settlements of Rescission of Payments for Ancillary Services Capacity that is Undispatchable, Unavailable, and Undelivered Capacity.

The rescission of payments for Ancillary Services for Undispatchable, Unavailable, and Undelivered Capacity applies to Ancillary Services that are awarded in the Day-Ahead Market or Real-Time Market and the rescission will be the weighted average of the Ancillary Service Marginal Prices (ASMPs) and Ancillary Services Award amounts for a resource across the Day-Ahead Market and Real-Time Market. For Self-Provided Ancillary Service capacity that becomes Undispatchable Capacity, Unavailable Capacity, or Undelivered Capacity, the rescission of Ancillary Services self-provision in the Day-Ahead Market and Real-Time Market reduces the relevant Scheduling Coordinator's effective Ancillary Services self-provision in the Ancillary Services cost allocation, effectively resulting in a charge back at the relevant Ancillary Services rate. The rescission of payments in this Section 11.10.9 shall not apply to a capacity payment for any particular Ancillary Service if the Ancillary Service Marginal Price (ASMP) is less than or equal to zero.

11.10.9.1 Rescission of Payments for Undispatchable Ancillary Service Capacity.

If a Scheduling Coordinator has Undispatchable Capacity that it is obligated to supply to the CAISO during a Settlement Interval, the Ancillary Service capacity payment for the amount of Energy that cannot be delivered from the Generating Unit, Participating Load, System Unit or System Resource for the Settlement Interval shall be rescinded; provided, however, that to the extent an Ancillary Service procured in the IFM from a System Resource becomes Undispatchable Capacity due to an Intertie transmission derate before the Operating Hour for which it was procured, in rescinding the Ancillary Service capacity payment, the CAISO shall credit back to the Scheduling Coordinator any charge for Congestion assessed pursuant to Section 11.10.1.1.1, but at the lower of the Day-Ahead and simple average of the fifteen (15) minute Real-Time Shadow Price over the applicable Trading Hour on the corresponding Intertie.

11.10.9.2 Rescission of Payments for Unavailable Ancillary Service Capacity.

Payments to the Scheduling Coordinator representing the Generating Unit, Participating Load, System Unit or System Resource for the Ancillary Service capacity used to supply Uninstructed Imbalance Energy shall not be eliminated to the extent of the deficiency if: (i) the deficiency in the availability of Ancillary Service capacity from the Generating Unit, Participating Load, System Unit or System Resource is attributable to control exercised by the CAISO in that Settlement Interval through AGC operation, an RMR Dispatch Notice, or an Exceptional Dispatch; or (ii) a penalty is imposed under Section 8.10.7 with respect to the deficiency.

In calculating the amount of the payment to be rescinded under Section 8.10.8.2, the CAISO shall reduce the payment for Ancillary Service capacity otherwise payable for the Settlement Interval by the product of the applicable prices and the amount of Ancillary Service capacity from which the Generating Unit, Participating Load, System Unit or System Resource has supplied Uninstructed Imbalance Energy in that Settlement Interval.

11.16.1 Order of Payment Rescission for Resources with More Than One Capacity Obligation in a Settlement Interval.

If the Generating Unit, Participating Load, System Unit or System Resource is scheduled to provide more than one capacity obligation in a Settlement Interval, the order in which the non-compliant Ancillary Service and RUC Capacity will be apportioned to the various services under Section 8.10.8 is as follows. For Undispatchable Capacity the non-compliant capacity is first apportioned to RUC Capacity and then to any Non-Spinning Reserves. If the amount of Undispatchable Capacity exceeds the amount of Non-Spinning Reserves, then the payment shall be eliminated for Spinning Reserves. For Unavailable Capacity or Undelivered Capacity the non-compliant capacity is first apportioned to any Non-Spinning Reserves. If the amount of non-compliant Ancillary Service capacity exceeds the amount of Non-Spinning Reserves, then the payment shall be eliminated for Spinning Reserves. If the same Ancillary Service is scheduled in the Day-Ahead Market or Real-Time Market, then the payments shall be rescinded in proportion to the amount of each Ancillary Service scheduled in each market. If the same Ancillary Service is self-provided and Bid, the order of rescission will be first the amount of Ancillary Service amounts submitted in Bids and then the Self-Provided Ancillary Service.

11.16.2 Load Following Metered Subsystems with an Obligation to Provide Ancillary Service Capacity or RUC Capacity in a Settlement Interval.

If a Load following MSS Operator is scheduled to provide Ancillary Service capacity, RUC Capacity, or some combination thereof in a Settlement Interval and if the scheduled capacity or a portion thereof is unavailable for some reason during the Settlement Interval, the non-compliant Ancillary Services and RUC Capacity (i.e., Undispatchable, Unavailable, or Undelivered Capacity) will be not be apportioned to the capacity designated by the MSS Operator as Load following up capacity and Load following down capacity. In determining which of the MSS Operator's capacity obligations were not available in Real-Time, the capacity designated by the MSS Operator as Load following up capacity and Load following down capacity shall be preserved or take precedence over the other capacity obligations.

TTC	Total Transfer Capability
UDC	Utility Distribution Company
UDCOA	Utility Distribution Company Operating Agreement
UDP	Uninstructed Deviation Penalty
UDP Aggregation	Two or more units scheduled by the same Scheduling Coordinator with the same Resource ID that are to be considered interchangeable for calculating the Uninstructed Deviation Penalty.
UFE	Unaccounted for Energy
UIE	Uninstructed Imbalance Energy
UIE Settlement Amount	The payment due a Scheduling Coordinator for positive Uninstructed Imbalance Energy or the charge assessed on a Scheduling Coordinator for negative Uninstructed Imbalance Energy, calculated pursuant to Section 11.5.2.
Unaccounted for Energy (UFE)	The difference in Energy, for each utility Service Area and Settlement Period, between the net Energy delivered into the utility Service Area, adjusted for utility Service Area Transmission Losses and the total Measured Demand within the utility Service Area adjusted for distribution losses using Distribution System loss factors approved by the Local Regulatory Authority. This difference is attributable to meter measurement errors, power flow modeling errors, energy theft, statistical Load profile errors, and distribution loss deviations.
Unavailable Capacity	Ancillary Services capacity that receives an AS Award and Self-Provided Ancillary Services capacity that was not dispatched by the CAISO but where all or a portion of the capacity was not available for Dispatch to provide Energy in Real-Time.

Attachment B – Blacklines
Settlements Bucket Amendment Filing
4th Replacement CAISO Tariff
March 30, 2009

* * *

11.1.2 The CAISO shall settle the following charges in accordance with this CAISO Tariff: (1) Grid Management Charge; (2) Bid Cost Recovery; (3) IFM charges and payments, including Energy and Ancillary Services; (4) RUC charges and payments; (5) Real-Time Market charges and payments, including Energy and Ancillary Services; (6) HASP charges and payments, ~~including for Energy and Ancillary Services~~; (7) High Voltage Access Charges and TAC Transition Charges; (8) Wheeling Access Charges; (9) Voltage Support and Black Start charges; (10) Excess Cost Payments; (11) default interest charges; (12) CRR Charges and Payments, (13) Inter-SC Trades charges and payments; (14) neutrality adjustments; (15) FERC Annual Charges; (16) distribution of excess Marginal Losses; (17) miscellaneous charges and payments; and (18) Participating Intermittent Resource Fees.

* * *

11.8.2.1.6 IFM AS Bid Cost.

For any Settlement Interval, the IFM AS Bid Cost shall be the product of the IFM ~~upward~~-AS Award from each accepted IFM AS Bid and the relevant AS Bid Price, divided by the number of Settlement Intervals in a Trading Hour.

* * *

11.8.2.2 IFM Market Revenue.

For any Settlement Interval in a CAISO IFM Commitment Period the IFM Market Revenue for a Bid Cost Recovery Eligible Resource is the algebraic sum of: (1) the product of the delivered MWh, in the relevant Day-Ahead Schedule in that Trading Hour where for Pumped-Storage Hydro Units and Participating Load operating in the pumping mode or serving Load, the MWh is negative, and the relevant IFM LMP, divided by the number of Settlement Intervals in a Trading Hour; and (2) the product of the IFM AS Award from each accepted IFM AS Bid and the relevant Resource-Specific ASMP, divided by the number of Settlement Intervals in a Trading Hour. For any Settlement Interval in a IFM Self-Commitment Period the IFM Market Revenue for a Bid Cost Recovery Eligible Resource is the algebraic sum of: (1) the product of the delivered MWh above the greater of Minimum Load and Self-Scheduled Energy, in the relevant Day-

Ahead Schedule in that Trading Hour and the relevant IFM LMP, divided by the number of Settlement Intervals in a Trading Hour; and (2) the product of the IFM AS Award from each accepted IFM AS Bid and the relevant Resource-Specific ASMP, divided by the number of Settlement Intervals in a Trading Hour.

* * *

11.8.6.4 Allocation of Net IFM Bid Cost Uplift.

For each Trading Hour of the IFM the hourly Net IFM Bid Cost Uplift is determined as the sum over the Settlement Intervals in that Trading Hour of the product of any positive Net IFM Bid Cost Uplift remaining in the Settlement Interval after the sequential netting in Section 11.8.6.2 and the application of the uplift ratio as determined in 11.8.6.3. The hourly Net IFM Bid Cost Uplift is allocated in two tiers as follows:

- (i) In the first tier, the hourly Net IFM Bid Cost Uplift is allocated to Scheduling Coordinators in proportion to their non-negative IFM Load Uplift Obligation, but with an IFM Bid Cost Uplift rate which is not to exceed the ratio of the hourly Net IFM Bid Cost Uplift for the Trading Hour divided by the maximum of 1) the sum of all hourly IFM Load Uplift Obligations for all Scheduling Coordinators in that Trading Hour or 2) the sum of all hourly Generation scheduled in the Day-Ahead Schedule and IFM upward AS Awards for all Scheduling Coordinators from CAISO-committed Bid Cost Recovery Eligible Resources in that Trading Hour. The IFM Load Uplift Obligation for each Scheduling Coordinator, including Scheduling Coordinators for Metered Subsystems regardless of their MSS optional elections (net/gross Settlement, Load following, RUC opt-in/out), is the difference between the total Demand scheduled in the Day-Ahead Schedule of that Scheduling Coordinator and the sum of scheduled Generation and scheduled imports from the Self-Schedules in the Day-Ahead Schedule of that Scheduling Coordinator, adjusted by any applicable Inter-SC Trades of IFM Load Uplift Obligations.
- (ii) In the second tier, Scheduling Coordinators, including Scheduling Coordinators for MSS Operators that have elected both to not follow their Load and gross

Settlement, will be charged for an amount equal to any remaining hourly Net IFM Bid Cost Uplift for the Trading Hour in proportion to the Scheduling Coordinator's Measured Demand. Scheduling Coordinators for MSS Operators that have elected to either follow their Load or net Settlement, or both, will be charged for an amount equal to any remaining hourly Net IFM Bid Cost Uplift for the Trading Hour in proportion to their MSS Aggregation Net Measured Demand.

* * *

11.10.1.1 Ancillary Services in DAM.

Payments to Scheduling Coordinators with AS Awards shall be equal to the ASMP calculated as provided in Section 27.1.2 for each Ancillary Service for the applicable trading hour in which the capacity is procured multiplied by the quantity of the capacity awarded for the Ancillary Service in each of the Ancillary Service Regions for the applicable trading hour in which the capacity is procured. Suppliers with Self-Provided Ancillary Services are not eligible to receive payment for Ancillary Service Awards based on ASMPs; Self-Provided Ancillary Services are compensated at the user rate for the service being self-provided as described in Sections 11.10.2, 11.10.3 and 11.10.4.

11.10.1.1.1 Congestion Charges for Day-Ahead Intertie Ancillary Service Awards.

Suppliers of Day-Ahead Ancillary Services Awards and qualified Self-Provided Ancillary Services over the Interties also are charged for Congestion if the Ancillary Service Award or the qualified Self-Provided Ancillary Service is at a congested Scheduling Point. The charge shall be equal to the Shadow Price of the applicable congested Scheduling Point multiplied by the quantity of the Ancillary Service Award or the capacity of the qualified Self-Provided Ancillary Service for the Settlement Period; provided, however, that no such charge for Congestion will apply to any qualified Self-Provided Ancillary Service that is within the entitlement of an Existing Right, Converted Right or Transmission Ownership Right.

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11.10.1.2.1 ~~[NOT USED] Congestion Charges for HASP Intertie Ancillary Service Awards.~~

~~Suppliers of HASP Ancillary Services Awards at Scheduling Points are also charged for Congestion if the Ancillary Service Award is at a congested Scheduling Point. The charge shall be equal to the simple~~

~~average of the 15 minute Shadow Price of the applicable congested Scheduling Point multiplied by the quantity of the Ancillary Service Award for the Settlement Period.~~

11.10.1.3 Ancillary Services Provided in Real-Time.

Suppliers of Ancillary Services from resources awarded in RTUC are paid a price equal to ~~¼~~one-quarter of the fifteen (15) minute ASMP (in \$/MW/h) in each fifteen (15) minute interval of the applicable Trading Hour in which the capacity is procured for ~~the~~ each Ancillary Service times the amount of the capacity awarded (MW) for the Ancillary Service in the relevant Ancillary Services Region for the applicable trading hour in which the capacity is procured. For each Ancillary Service, the ASMP is calculated as set forth in Section 27.1.2. Suppliers ~~that of~~ Self-Provided Ancillary Services in the Real-Time Market are not eligible to receive payment using the ASMP; rather to the extent the self-provision is qualified it will be valued at the user rate for the relevant service (i.e., will either reduce the Ancillary Services Obligation or receive the user rate if it exceeds the Scheduling Coordinator's Ancillary Service Obligation) as described in Sections 11.10.2, 11.10.3 and 11.10.4.

11.10.1.3.1 Congestion Charges for Real-Time Intertie Ancillary Service Awards from Dynamic System Resources.

For each Settlement Period, the ~~Congestion Charge for~~ Suppliers of Real-Time Ancillary Services Awards or qualified Self-Provided Ancillary Services at Scheduling Points for Dynamic System Resources shall be charged for Congestion and such charge shall be equal to the simple average of the fifteen (15) minute Shadow Prices at the applicable Scheduling Point for the applicable Trading Hour for the awarded or Self-Provided Ancillary Service multiplied by the quantity of the Ancillary Service Award for the capacity of the qualified Self-Provided Ancillary Service for the Settlement Period; provided, however, that no such charge for Congestion will apply to any qualified Self-Provided Ancillary Service that is within the entitlements of an Existing Right or Transmission Ownership Right.

* * *

11.10.2 Settlement for User Charges for Ancillary Services.

The CAISO shall determine a separate hourly user rate for Regulation Down Reserve, Regulation Up Reserve, Spinning Reserve, and Non-Spinning Reserve purchased for each Settlement Period. The hourly user rates for Regulation Down, Regulation Up, Spinning Reserve, and Non-Spinning Reserve

include the cost incurred by the CAISO across the Day-Ahead Market, ~~AM, HASP,~~ and the Real-Time Market to procure this service. In computing the user rate for each service the quantity (MW) and costs of any substituting Ancillary Service will be treated as if they are costs and MW associated with the Ancillary Service need they are being used to fulfill. Each rate will be charged to Scheduling Coordinators on a volumetric basis applied to each Scheduling Coordinator's obligation for the specific Ancillary Service concerned which it has not self-provided, as adjusted by any Inter-SC Trades of Ancillary Services.

Each Scheduling Coordinator's obligation for Regulation Down Reserve, Regulation Up Reserve, Spinning Reserve, and Non-Spinning Reserve shall be calculated in accordance with this Section 11.10.2, notwithstanding any adjustment to the quantities of each Ancillary Service purchased by the CAISO in accordance with Section 8.2.3.5. The cost of Voltage Support and Black Start shall be allocated to Scheduling Coordinators as described in Sections 11.10.7 and 11.10.8.

Ancillary Services Obligations for an individual Scheduling Coordinator (before taking into account Self-Provided Ancillary Services) or Inter-SC Trades of Ancillary Services) may be negative. Credits for such negative obligations will be in accordance with the rates calculated in this Section 11.10.2, except that a Scheduling Coordinator's credit shall be reduced -pro rata to the extent the sum of the negative obligations of all Scheduling Coordinators with the negative Ancillary Services Obligation (before self-provision or Inter-SC Trade) exceeds the obligation of all Scheduling Coordinators with positive obligation net of Self-Provided Ancillary Services, as specified in Section 11.10.5 in any Settlement Period, the net procurement quantity of Regulation Up, Regulation Down, Spinning Reserve, or Non-Spinning Reserve purchased by the CAISO in the Day-Ahead Market, ~~AM, HASP,~~ and the Real-Time Market due to the operation of Section 8.2.3.5 is zero, then the user rate for that Ancillary Service type will be zero.

With respect to each Settlement Period, in addition to the user rates determined in accordance with this Section 11.10.2, each Scheduling Coordinator shall be charged an additional amount equal to its proportionate share, based on total purchases by Scheduling Coordinators of Regulation Down, Regulation Up, Spinning Reserve, and Non-Spinning Reserve of the amount, if any, by which (i) the total payments to Scheduling Coordinators pursuant to this Section 11.10.2 for the Day-Ahead Market, ~~AM, HASP,~~ and the Real-Time Market, exceed (ii) the total amounts charged to Scheduling Coordinators pursuant to this Section 11.10.2, for the Day-Ahead Market, ~~AM, HASP,~~ and the Real-Time Market. If total

amounts charged to Scheduling Coordinators exceed the total payments to Scheduling Coordinators, each Scheduling Coordinator will be refunded its proportionate share, based on total purchases by Scheduling Coordinators of Regulation Down, Regulation Up, Spinning Reserve, and Non-Spinning Reserve.

With respect to each Settlement Period, in addition to Ancillary Service charges at the applicable user rates determined in accordance with this Section 11.10.2, each Scheduling Coordinator shall be charged additional neutrality adjustment amounts for each Ancillary Service type pursuant to Sections 11.10.2.4, 11.10.2.2.3, 11.10.3.3, and 11.10.4.3 and a neutrality adjustment amount for upward Ancillary Service types pursuant to Section 11.14.

* * *

11.10.2.1.2 Hourly User Rate for Regulation Down Reserve.

The hourly user rate for Regulation Down is the total Regulation Down Reserve Cost (\$) for each Settlement Period divided by the total Net Procurement of Regulation Down by the CAISO (MW) for each Settlement Period. The CAISO's Regulation Down Reserve Cost is equal to: (i) the revenues paid to the suppliers of the total awarded Regulation Down Reserve capacity in the Day-Ahead Market~~AM, HASP,~~ and Real-Time Market for the Settlement Period, minus, (ii) the payments rescinded in the Settlement Period due to the unavailability of the Regulation Down under any of the provisions of Section 8.10.8.

The Net Procurement of Regulation Down Reserves is equal to: (i) the amount (MW) of total awarded Regulation Down Reserve capacity in the Day-Ahead Market~~, HASP,~~ and Real-Time Market for the Settlement Period, minus, (ii) the Regulation Down Reserve capacity associated with payments rescinded for the Settlement Period pursuant to any of the provisions of Section 8.10.8.

* * *

11.10.2.2.1 Hourly User Rate for Regulation Up.

The hourly user rate for Regulation Up is the total Regulation Up cost (\$) for each Settlement Period divided by the total Net Procurement of Regulation Up by the CAISO (MW) for each Settlement Period.

The CAISO's Regulation Up cost is equal to: (i) the revenues paid to the suppliers of the total awarded Regulation Up capacity in the Day-Ahead Market~~, HASP,~~ and Real-Time Market for the Settlement Period, minus, (ii) the payments rescinded in the Settlement Period due to the unavailability of the

Regulation Up under any of the provisions of Section 8.10.8. The Net Procurement of Regulation Up is equal to: (i) the amount (MWs) of total awarded Regulation Up capacity in the Day-Ahead Market, ~~HASP~~, and Real-Time Market for the Settlement Period, minus, (ii) the Regulation Up capacity associated with payments rescinded for the Settlement Period, pursuant to any of the provisions of Section 8.10.8.

* * *

11.10.3.1 Hourly User Rate for Spinning Reserves.

The hourly user rate for Spinning Reserves is the ratio of: 1) sum of the portion of Spinning Reserve Cost used to meet the spin requirement and the portion of Regulation Up cost that can substitute for Spinning Reserve and 2) the Net Procurement quantity of Spinning Reserves by the CAISO (\$/MW). The cost of Regulation Up substituting for Spinning Reserve is the user rate for Regulation Up multiplied by the quantity of Regulation Up used to satisfy the Spinning Reserve requirement.

The CAISO's Spinning Reserve Cost is equal to: (i) the revenues paid to the suppliers of the total awarded Spinning Reserve capacity in the Day-Ahead Market, ~~HASP~~, and Real-Time Market, minus, (ii) the payments rescinded due to either the failure to conform to Dispatch Instructions or the unavailability of the Spinning Reserves under Section 8.10.8. The Net Procurement of Spinning Reserves is equal to: (i) the amount (MWs) of total awarded Spinning Reserve capacity in the Day-Ahead Market, ~~HASP~~, and Real-Time Market, minus, (ii) the Spinning Reserve capacity associated with payments rescinded pursuant to any of the provisions of Section 8.10.8. The amount (MW) of awarded Spinning Reserve capacity includes the amounts (MW) associated with any Regulation Up Reserve capacity used as Spinning Reserve under Section 8.2.3.5.

* * *

11.10.4.1 Hourly User Rate for Non-Spinning Reserves.

The hourly user rate for Non-Spinning Reserves is calculated as the ratio of: i) the sum of the portion of the Non-Spinning Reserve Cost used to meet the Non-Spinning requirement and a portion of the Regulation Up and Spinning Reserve costs that can substitute for Non-Spinning Reserve and ii) the Net Procurement quantity of Non-Spinning Reserves by the CAISO (\$/MW). The CAISO's Non-Spinning Reserve Cost includes the costs associated with any Regulation Up Reserve or Spinning Reserve capacity used as Non-Spinning Reserve under Section 8.2.3.5.

The CAISO's Non-Spinning Reserve Cost is equal to: (i) the revenues paid to the suppliers of the total awarded Non-Spinning Reserve capacity in the Day-Ahead Market, ~~HASP~~, and Real-Time Market, minus, (ii) the payments rescinded due to either the failure to conform to CAISO Dispatch Instructions or the unavailability of the Non-Spinning Reserves under Section 8.10.8. The Net Procurement of Non-Spinning Reserves is equal to: (i) the amount (MWs) of total awarded Non-Spinning Reserve capacity in the Day-Ahead Market, ~~HASP~~, and Real-Time Market, minus, (ii) the Non-Spinning Reserve capacity associated with payments rescinded pursuant to any of the provisions of Section 8.10.8. The amount (MW) of awarded Spinning Reserve capacity includes the amounts (MW) associated with any Regulation Up Reserve or Spinning Reserve capacity used as Non-Spinning Reserve under Section 8.2.3.5.

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11.10.6 Upward Ancillary Services Neutrality Adjustment.

For each Settlement Period the difference between the upwards Ancillary Service cost and the product of the total Ancillary Service net requirements at the relevant Ancillary Service user rate will be allocated to all Scheduling Coordinators in proportion to their upward Ancillary Service Obligation (net before taking into consideration the ~~of~~ Inter-SC Trades of Ancillary Services). The upwards Ancillary Service cost is the sum of the Regulation Up, Spinning Reserve and Non-Spinning Reserve cost described in Sections 11.10.2.2.1, 11.10.3.1 and 11.10.4.1. The Ancillary Service net requirement is the sum of the Real-Time Regulation Up net requirement in Section 11.10.2.2.3, Spinning Reserve net requirement in Section 11.10.3.3 and Non-Spinning Reserve net requirement in Section 11.10.4.3.

* * *

11.10.9 Settlements of Rescission of Payments for Ancillary Services Capacity that is Undispatchable, Unavailable, and Undelivered Capacity.

The rescission of payments for Ancillary Services for Undispatchable, Unavailable, and Undelivered Capacity applies to Ancillary Services that are awarded in the Day-Ahead Market, ~~HASP~~ or Real-Time Market and the rescission will be the weighted average of the Ancillary Service Marginal Prices (ASMPs) and Ancillary Services Award amounts for a resource across the Day-Ahead Market, ~~HASP~~ and Real-Time Market. For Self-Provided Ancillary Service capacity that becomes Undispatchable Capacity, Unavailable Capacity, or Undelivered Capacity, the rescission of Ancillary Services self-provision in the

Day-Ahead Market, ~~HASP~~ and Real-Time Market reduces the relevant Scheduling Coordinator's effective Ancillary Services self-provision in the Ancillary Services cost allocation, effectively resulting in a charge back at the relevant Ancillary Services rate. The rescission of payments in this Section 11.10.9 shall not apply to a capacity payment for any particular Ancillary Service if the Ancillary Service Marginal Price (ASMP) is less than or equal to zero.

11.10.9.1 Rescission of Payments for Undispatchable Ancillary Service Capacity.

If a Scheduling Coordinator has Undispatchable Capacity that it is obligated to supply to the CAISO during a Settlement Interval, the Ancillary Service capacity payment for the amount of Energy that cannot be delivered from the Generating Unit, Participating Load, System Unit or System Resource for the Settlement Interval shall be rescinded; provided, however, that to the extent an Ancillary Service procured in the IFM from a System Resource becomes Undispatchable Capacity due to an Intertie transmission derate before the Operating Hour for which it was procured, in rescinding the Ancillary Service capacity payment, the CAISO shall credit back to the Scheduling Coordinator any charge for Congestion Charge assessed pursuant to Section 11.10.1.1.1, but at the lower of the Day-Ahead and simple average of the fifteen (15) minute Real-Time ~~HASP~~ Shadow Price over the applicable Trading Hour on the corresponding Intertie.

* * *

11.16.1 Order of Payment Rescission for Resources with More Than One Capacity Obligation in a Settlement Interval.

If the Generating Unit, Participating Load, System Unit or System Resource is scheduled to provide more than one capacity obligation in a Settlement Interval, the order in which the non-compliant Ancillary Service and RUC Capacity will be apportioned to the various services under Section 8.10.8 is as follows. For Undispatchable Capacity the non-compliant capacity is first apportioned to RUC Capacity and then to any Non-Spinning Reserves. If the amount of Undispatchable Capacity exceeds the amount of Non-Spinning Reserves, then the payment shall be eliminated for Spinning Reserves. For Unavailable Capacity or Undelivered Capacity the non-compliant capacity is first apportioned to any Non-Spinning Reserves. If the amount of non-compliant Ancillary Service capacity exceeds the amount of Non-Spinning Reserves, then the payment shall be eliminated for Spinning Reserves. If the same Ancillary Service is scheduled in the Day-Ahead Market, ~~HASP~~ or Real-Time Market, then the payments shall be

rescinded in proportion to the amount of each Ancillary Service scheduled in each market. If the same Ancillary Service is self-provided and Bid, the order of rescission will be first the amount of Ancillary Service amounts submitted in Bids and then the Self-Provided Ancillary Service.

* * *

CAISO Tariff Appendix A

Master Definitions Supplement

Unaccounted for Energy (UFE)

The difference in Energy, for each utility Service Area and Settlement Period, between the net Energy delivered into the utility Service Area, adjusted for utility Service Area Transmission Losses and the total ~~Metered~~ Measured Demand within the utility Service Area adjusted for distribution losses using Distribution System loss factors approved by the Local Regulatory Authority. This difference is attributable to meter measurement errors, power flow modeling errors, energy theft, statistical Load profile errors, and distribution loss deviations.

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ATTACHMENT C TABLE OF TARIFF CHANGES

Tariff Section	Revision
11.1.2	Delete reference to Ancillary Services from the HASP Charges settled pursuant to the Tariff.
11.8.2.1.6 - IFM AS Bid Cost	Delete the word “upward” from the factor “IFM upward AS Award” used in determining IFM AS Bid cost.
11.8.2.2 - IFM Market Revenue	Add the term “delivered” to describe the MWh used in determining IMF Market Revenue with regard to Energy in two places.
11.8.6.4 - Allocation of Net IFM Bid Cost Uplift	Add language to specify that, in the first tier of the allocation of hourly Net IFM Bid Cost Uplift, that Uplift is allocated to Scheduling Coordinators in proportion to their non-negative IFM Load Uplift Obligation, but with an IFM Bid Cost Uplift rate which is not to exceed the ratio of the hourly Net IFM Bid Cost Uplift for the Trading Hour divided by the maximum of 1) the sum of all hourly IFM Load Uplift Obligation for all Scheduling Coordinators in that Trading Hour or 2) the sum of all hourly Generation scheduled in the Day-Ahead Schedule and IFM upward AS Awards for all Scheduling Coordinators from CAISO-committed Bid Cost Recovery Eligible Resources in that Trading Hour.
11.10.1.1 - Ancillary Services in DAM	Replace the word “Schedule” with “Schedules”.
11.10.1.1.1 - Congestion Charges for Day-Ahead Intertie Ancillary Service Awards	Add qualified Self-Provided Ancillary Services to the transactions charged Congestion charges at congested Scheduling Points, except for any qualified Self-Provided Ancillary Services within the entitlement of an Existing Right, Converted Right or Transmission Ownership Right.
11.10.1.2.1 - Congestion Charges for HASP Intertie Ancillary Service Awards.	Delete section.

Tariff Section	Revision
11.10.1.3 - Ancillary Services Provided in Real-Time	Replace the term “¼” with “one-quarter”; add the phrase “of the applicable Trading Hour in which the capacity is procured” to describe the relevant fifteen minute intervals; and replace the phrase “that self provide” with “of Self-Provided”.
11.10.1.3.1 - Congestion Charges for Real-Time Intertie Ancillary Service Awards from Dynamic System Resources	Add qualified Self-Provided Ancillary Services to the transactions charged Congestion charges at Scheduling Point for Dynamic Resources, except for any qualified Self-Provided Ancillary Services within the entitlement of an Existing Right, Converted Right or Transmission Ownership Right. Add the phrase “for the applicable Trading Hour of the awarded or Self-Provided Ancillary Service” to describe the fifteen minute Shadow Prices.
11.10.2 - Settlement for User Charges for Ancillary Services	Delete all references to “HASP”; replace the all uses of the term “DAM” with “Day-Ahead Market”.
11.10.2.1.2 - Hourly User Rate for Regulation Down Reserve	Delete all references to “HASP”; replace the term “DAM” with “Day-Ahead Market”.
11.10.2.2.1 - Hourly User Rate for Regulation Up	Delete all references to “HASP”.
11.10.3.1 - Hourly User Rate for Spinning Reserves	Delete reference to “HASP”.
11.10.4.1 - Hourly User Rate for Non-Spinning Reserves	Delete all references to “HASP”.
11.10.6 - Upward Ancillary Services Neutrality Adjustment	Replace with phrase “net of Inter-SC Trades of Ancillary Services” with “(before taking into consideration the Inter-SC Trades of Ancillary Services)”.
11.10.9 - Settlements of Rescission of Payments for Ancillary Services Capacity that is Undispatchable, Unavailable, and Undelivered Capacity	Delete all references to “HASP”.
11.10.9.1 - Rescission of Payments for Undispatchable Ancillary Service Capacity	Replace the phrase “Congestion Charge” with the phrase “charge for Congestion” and replace the phrase “HASP Shadow Price” with the phrase “simple average of the fifteen (15) minute Real-Time Shadow Price over

Tariff Section	Revision
	the applicable Trading Hour”.
11.16.1 - Order of Payment Rescission for Resources with More Than One Capacity Obligation in a Settlement Interval	Delete reference to “HASP”.
Appendix A – Definition of Unaccounted for Energy (UFE)	Replace term “Metered Demand” with the term “Measured Demand”.