October 24, 2012

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

Re: California Independent System Operator Corporation

Amendments to California ISO FERC Electric Tariff to Implement the Flexible Ramping Constraint and Provide Related Compensation
FERC Docket No. ER12-50-000

Dear Secretary Bose:

The California Independent System Operator Corporation submits the attached tariff provisions in compliance with paragraph 5 of the Federal Energy Regulatory Commission's Letter Order dated October 3, 2012, in the above referenced docket. In its Letter Order the Commission accepted the ISO's Offer of Settlement without further modification as filed on July 27, 2012, and directed the ISO to file within 30 days of the date of the order, a compliance filing in eTariff pursuant to Order No. 714, in order to implement the Settlement and revised tariff sheets consistent with the Commission's approval of the Offer of Settlement.

Please contact the undersigned for any further questions.

Respectfully submitted,
By: *<u>/s/ Anna A. McKenna</u>*
Nancy Saracino
General Counsel
Anthony Ivancovich
Deputy General Counsel
Anna A. McKenna
Assistant General Counsel
California Independent System
Operator Corporation
250 Outcropping Way
Folsom, CA 95630
Tel.: (916) 608-7182
Fax: (916)-608-7222
amckenna@caiso.com

Attachment A – Clean Tariff

California Independent System Operator Corporation

Compliance Filing to Implement Flexible Ramping Constraint Settlement

October 24, 2012

11.25 Flexible Ramping Constraint Compensation

11.25.1 Compensation

All resources identified as resolving the Flexible Ramping Constraint in the applicable RTUC interval are awarded Flexible Ramping Constraint capacity and will be compensated for such capacity for each RTUC interval, whether or not the Flexible Ramping Constraint is binding, limited by the quantity of Flexible Ramping Constraint requirements set by the CAISO operators as follows: The Scheduling Coordinator is paid the product of the (1) upward MW of capacity identified to satisfy the constraint, multiplied by 0.25 hours, and (2) Flexible Ramping Constraint Derived Price calculated for each applicable fifteen-minute RTUC interval as described further in this Section 11.25.1. Payment to resources will be rescinded as set forth in Section 11.25.2. For each applicable fifteen-minute RTUC interval, the Flexible Ramping Constraint Derived Price is equal to the lesser of: 1) $800/MWh; or 2) the greater of: (a) zero (0), or (b) the Real-Time ASMP for Spinning Reserves for the applicable fifteen-minute RTUC interval; or (c) the Flexible Ramping Constraint Shadow Price minus seventy-five (75) percent of the maximum of (i) zero (0), or (ii) the Real-Time System Marginal Energy Cost, calculated as the simple average of the three five-minute Dispatch Interval System Marginal energy costs in the applicable fifteen-minute RTUC interval. The Shadow Price of the binding Flexible Ramping Constraint represents the reduction of the total Energy and Ancillary Services procurement cost associated with a marginal change of that constraint, which is equal to zero (0) if the Flexible Ramping Constraint is not binding. All costs associated with payments made pursuant to this Section 11.25 are allocated to all Scheduling Coordinators pursuant to the requirements set forth in Section 11.25.3.

11.25.2 Rescission of Payment for Non-Performance

Payment to Scheduling Coordinators are rescinded for the quantity of MWs of undelivered Flexible Ramping Constraint capacity determined as the hourly sum of the Settlement Interval amounts calculated as the minimum of: 1) the Flexible Ramping Constraint capacity identified as having contributed to the relief of the Flexible Ramping Constraint, or 2) the maximum of (a) zero (0), or (b) the difference between (i) the absolute value of sum of the negative Tier 1 UIE and negative Tier 2 UIE, which are both as defined in Section 11.5.2, and (ii) the upward MWs identified as Undelivered Ancillary Services Capacity as required in Section 11.10.9.3. The rescinded amounts will be based on the product of the: 1) MWs quantities to be rescinded determined as described in this Section 11. 25.2; and 2) hourly Flexible Ramping Constraint price determined as the weighted average of the four fifteen-minute Flexible Ramping Constraint Derived Prices derived as described in Section 11.25.1.

11.25.3 Allocation of Costs

The CAISO determines the total Flexible Ramping Constraint costs incurred as described in Section 11.25.1, net of the rescission of payments as described and 11.25.2. The CAISO divides the total Flexible Ramping Constraint costs incurred in two portions and allocates each portion as follows:

11.25.3.1 Allocation to Measured Demand

Seventy five (75) percent of the total Flexible Ramping Constraint costs netted as described above in the Section 11.25.3, are allocated to Scheduling Coordinators based on their Measured Demand for each applicable Trading Hour. Each Scheduling Coordinator is assessed a portion of seventy-five (75) percent share of the total costs equal to the Scheduling Coordinator's Measured Demand for the applicable Trading Hour divided by total market Measured Demand for the applicable Trading Hour.

11.25.3.2 Allocation to Supply Deviations

Twenty-five (250 percent of the total Flexible Ramping Constraint costs netted as described above in this section 11.25.3, are allocated to Scheduling Coordinators based on their gross negative supply deviations as follows, using a two-step process.

First on a daily basis, the CAISO determines a daily rate equal to twenty-five (25) percent of the total daily Flexible Ramping Constraint costs divided by total daily gross supply negative deviations for the applicable Trading Day. Each Scheduling Coordinator is assessed its share of these daily costs based on its daily gross negative deviations calculated by resource as described below. Second, at the end of each Trading Month, the ISO reverses the daily amounts assessed to Scheduling Coordinators and calculates a monthly rate equal to twenty-five (25) percent of the total monthly Flexible Ramping Constraint costs divided by the total monthly gross supply negative deviations. Each Scheduling Coordinator is assessed its share of these monthly costs per its monthly gross negative deviations calculated by resource as described below. The gross supply negative deviations are determined by resource based on the sum of: (1) the resource's total negative Settlement Interval Tier 1 UIE and Tier 2 UIE deviations, which are determined as defined in Section 11.5.2, and (2) any negative import Operational Adjustments. Gross supply negative deviations determined for this purpose are not netted across Settlement Intervals. The CAISO will provide the ability for Scheduling Coordinators to see daily or monthly Flexible Ramping Constraint cost allocation by resource for their resources in their regularly released settlement statements.

***

27.10 Flexible Ramping Constraint

The CAISO may enforce a Flexible Ramping Constraint in the HASP, RTUC, STUC, and RTED. Any flexible Dispatch capacity constrained to be available as a result of the Flexible Ramping Constraint in RTUC will come from capacity that is not designated to provide Regulation or Operating Reserves, and will not offset the required procurement of those Regulation or Operating Reserves in RTUC. To the extent a resource incurs an opportunity cost for not providing Energy or Ancillary Services in the RTUC interval as a result of a binding Flexible Ramping Constraint, all resources resolving that Flexible Ramping Constraint will be compensated pursuant to Section 11.25. In RTD the resources identified as resolving the Flexible Ramping Constraint in the corresponding RTUC run will be the only resources used to resolve the Flexible Ramping Constraint enforced in RTD. The Flexible Ramping Constraint can be satisfied only by committed online dispatchable Generating Units, Participating Load, and Proxy Demand Response resources with ramping capability for which a Scheduling Coordinator has submitted Economic Bids for Energy for the applicable Trading Hour, and Dynamic System resources as specified below. This constraint cannot be satisfied by System Resources that are not Dynamic System Resources. Dynamic System Resources can become eligible to participate in relieving the Flexible Ramping Constraint if the Scheduling Coordinator scheduling that Resource can demonstrate that it has firm transmission service to the CAISO Balancing Authority Area intertie that allows the resource to deliver additional Energy in Real-Time, consistent with the requirements of Section 1.5 of the Dynamic Scheduling Protocol in Appendix M. This Dynamic System Resource must demonstrate that the Dynamic System Resource has acquired sufficient firm transmission to support the total quantity of Energy and Ancillary Services offered in the Real-Time Market by submitting an E-Tag with a transmission profile that reflects the necessary transmission reservation(s) outside the CAISO Balancing Authority Area. Procurement of Flexible Ramping Constraint capacity from Dynamic System Resources is limited by the available capacity in Real-Time for the applicable interval on the applicable intertie transmission constraint with which the Dynamic System Resource is associated. The quantity of the flexible ramping capacity for each applicable CAISO Market run will be determined by CAISO operators using tools that estimate the: 1) expected level of imbalance variability; 2) uncertainty due to forecast error; and 3) differences between the hourly, fifteen (15) minute average and historical five (5) minute Demand levels.

***

Appendix A
Master Definitions Supplement

*****

- Flexible Ramping Constraint

A constraint that may be enforced in the optimization of a given CAISO Market run to ensure that the unit commitment or Dispatch of resources for intervals beyond the applicable commitment or Dispatch period provide for the availability of required capacity for Dispatch in subsequent Real-Time Dispatch intervals as further described in Section 27.10.

***

- Flexible Ramping Constraint Derived Price

The price at which resources identified as relieving the Flexible Ramping Constraint in Section 27.10 are compensated as described in Section 11.25.

Attachment B – Marked Tariff

California Independent System Operator Corporation

Compliance Filing to Implement Flexible Ramping Constraint Settlement

October 24, 2012

11.25 Flexible Ramping Constraint Compensation

11.25.1 Compensation

All resources identified as resolving the Flexible Ramping Constraint in the ~~binding~~ applicable RTUC interval are awarded Flexible Ramping Constraint capacity and will be compensated for such capacity for each RTUC interval, whether or not the Flexible Ramping Constraint is binding, limited by the quantity of Flexible Ramping Constraint requirements set by the CAISO operators as follows: The Scheduling Coordinator is paid the product of the (1) upward MW of capacity identified to satisfy the constraint, multiplied by 0.25 hours, and (2) Flexible Ramping Constraint Derived Price calculated for each applicable fifteen-minute RTUC interval as described further in this Section 11.25.1. Payment to resources will be rescinded as set forth in Section 11.25.2. For each applicable fifteen-minute RTUC interval, the Flexible Ramping Constraint Derived Price is equal to the lesser of: 1) $800/MWh; or 2) the greater of: (a) zero (0), or (b) the Real-Time ASMP for Spinning Reserves for the applicable fifteen-minute RTUC interval; or (c) the Flexible Ramping Constraint Shadow Price minus seventy-five (75) percent of the maximum of (i) zero (0), or (ii) the Real-Time System Marginal Energy Cost, calculated as the simple average of the three five-minute Dispatch Interval System Marginal energy costs in the applicable fifteen-minute RTUC interval. ~~based on the Flexible Ramping Constraint Shadow Price.~~ The Shadow Price of the binding Flexible Ramping Constraint represents the reduction of the total Energy and Ancillary Services procurement cost associated with a marginal change of that constraint, which is equal~~.~~ ~~The Shadow Price is~~ to zero (0) if the Flexible Ramping Constraint is not binding.~~The compensation will equal the product of the upward ramping MW quantity of Flexible Ramping Constraint capacity the specific resource is awarded and the Shadow Price of the binding Flexible Ramping Constraint for the applicable interval.~~ All costs associated with payments made pursuant to this Section 11.25 are allocated to all Scheduling Coordinators pursuant to the requirements set forth in Section 11.25.3~~their Measured Demand~~.

11.25.2 Rescission of Payment for Non-Performance

Payment to Scheduling Coordinators are rescinded for the quantity of MWs of undelivered Flexible Ramping Constraint capacity determined as the hourly sum of the Settlement Interval amounts calculated as the minimum of: 1) the Flexible Ramping Constraint capacity identified as having contributed to the relief of the Flexible Ramping Constraint, or 2) the maximum of (a) zero (0), or (b) the difference between (i) the absolute value of sum of the negative Tier 1 UIE and negative Tier 2 UIE, which are both as defined in Section 11.5.2, and (ii) the upward MWs identified as Undelivered Ancillary Services Capacity as required in Section 11.10.9.3. The rescinded amounts will be based on the product of the: 1) MWs quantities to be rescinded determined as described in this Section 11. 25.2; and 2) hourly Flexible Ramping Constraint price determined as the weighted average of the four fifteen-minute Flexible Ramping Constraint Derived Prices derived as described in Section 11.25.1.

11.25.3 Allocation of Costs

The CAISO determines the total Flexible Ramping Constraint costs incurred as described in Section 11.25.1, net of the rescission of payments as described and 11.25.2. The CAISO divides the total Flexible Ramping Constraint costs incurred in two portions and allocates each portion as follows:

11.25.3.1 Allocation to Measured Demand

Seventy five (75) percent of the total Flexible Ramping Constraint costs netted as described above in the Section 11.25.3, are allocated to Scheduling Coordinators based on their Measured Demand for each applicable Trading Hour. Each Scheduling Coordinator is assessed a portion of seventy-five (75) percent share of the total costs equal to the Scheduling Coordinator's Measured Demand for the applicable Trading Hour divided by total market Measured Demand for the applicable Trading Hour.

11.25.3.2 Allocation to Supply Deviations

Twenty-five (250 percent of the total Flexible Ramping Constraint costs netted as described above in this section 11.25.3, are allocated to Scheduling Coordinators based on their gross negative supply deviations as follows, using a two-step process.

First on a daily basis, the CAISO determines a daily rate equal to twenty-five (25) percent of the total daily Flexible Ramping Constraint costs divided by total daily gross supply negative deviations for the applicable Trading Day. Each Scheduling Coordinator is assessed its share of these daily costs based on its daily gross negative deviations calculated by resource as described below. Second, at the end of each Trading Month, the ISO reverses the daily amounts assessed to Scheduling Coordinators and calculates a monthly rate equal to twenty-five (25) percent of the total monthly Flexible Ramping Constraint costs divided by the total monthly gross supply negative deviations. Each Scheduling Coordinator is assessed its share of these monthly costs per its monthly gross negative deviations calculated by resource as described below. The gross supply negative deviations are determined by resource based on the sum of: (1) the resource's total negative Settlement Interval Tier 1 UIE and Tier 2 UIE deviations, which are determined as defined in Section 11.5.2, and (2) any negative import Operational Adjustments. Gross supply negative deviations determined for this purpose are not netted across Settlement Intervals. The CAISO will provide the ability for Scheduling Coordinators to see daily or monthly Flexible Ramping Constraint cost allocation by resource for their resources in their regularly released settlement statements.

***

27.10 Flexible Ramping Constraint

The CAISO may enforce a Flexible Ramping Constraint in the HASP, RTUC, STUC, and RTED. Any flexible Dispatch capacity constrained to be available as a result of the Flexible Ramping Constraint in RTUC will come from capacity that is not designated to provide Regulation or Operating Reserves, and will not offset the required procurement of those Regulation or Operating Reserves in RTUC. To the extent a resource incurs an opportunity cost for not providing Energy or Ancillary Services in the RTUC interval as a result of a binding Flexible Ramping Constraint, all resources resolving that Flexible Ramping Constraint will be compensated pursuant to Section 11.25. In RTD the resources identified as resolving the Flexible Ramping Constraint in the corresponding RTUC run will be the only resources used to resolve the Flexible Ramping Constraint enforced in RTD. The Flexible Ramping Constraint can be satisfied only by committed online dispatchable Generating Units, Participating Load, and Proxy Demand Response resources with ramping capability for which a Scheduling Coordinator has submitted Economic Bids for Energy for the applicable Trading Hour, and Dynamic System resources as specified below. This constraint cannot be satisfied by System Resources that are not Dynamic System Resources. Dynamic System Resources can become eligible to participate in relieving the Flexible Ramping Constraint if the Scheduling Coordinator scheduling that Resource can demonstrate that it has firm transmission service to the CAISO Balancing Authority Area intertie that allows the resource to deliver additional Energy in Real-Time, consistent with the requirements of Section 1.5 of the Dynamic Scheduling Protocol in Appendix M. This Dynamic System Resource must demonstrate that the Dynamic System Resource has acquired sufficient firm transmission to support the total quantity of Energy and Ancillary Services offered in the Real-Time Market by submitting an E-Tag with a transmission profile that reflects the necessary transmission reservation(s) outside the CAISO Balancing Authority Area. Procurement of Flexible Ramping Constraint capacity from Dynamic System Resources is limited by the available capacity in Real-Time for the applicable interval on the applicable intertie transmission constraint with which the Dynamic System Resource is associated. The quantity of the flexible ramping capacity for each applicable CAISO Market run will be determined by CAISO operators using tools that estimate the: 1) expected level of imbalance variability; 2) uncertainty due to forecast error; and 3) differences between the hourly, fifteen (15) minute average and historical five (5) minute Demand levels.

***

Appendix A
Master Definitions Supplement

****

- Flexible Ramping Constraint

A constraint that may be enforced in the optimization of a given CAISO Market run to ensure that the unit commitment or Dispatch of resources for intervals beyond the applicable commitment or Dispatch period provide for the availability of required capacity for Dispatch in subsequent Real-Time Dispatch intervals as further described in Section 27.10.

***

Flexible Ramping Constraint Derived Price

The price at which resources identified as relieving the Flexible Ramping Constraint in Section 27.10 are compensated as described in Section 11.25.

CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon all parties listed on the official service list in the captioned proceedings, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Washington, DC, this 24th day of October, 2012.

/s/ Daniel Klein
Daniel Klein