

December 7, 2018

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

**Re: California Independent System Operator Corporation
ER19-2398-_____**

Compliance with Order No. 844 – Response to Deficiency Letter

Dear Secretary Bose:

The California Independent System Operator Corporation (CAISO) submits this filing in response to the Commission's Office of Energy Market Regulation's request for additional information in response to the CAISO's September 7, 2018 filing to comply with Commission Order No. 844, a final rule relating to uplift cost allocation and transparency in markets operated by Regional Transmission Owners (RTOs) and Independent System Operators (ISOs).¹ The CAISO requests that the Commission accept this filing, which supplements the CAISO's September 7, 2018 compliance filing, as meeting the requirements of Order No. 844. The CAISO requests the Commission waive its prior notice requirements to make the CAISO's tariff revisions effective January 1, 2019.

I. Introduction

As part of Order No. 844, the Commission required RTOs and ISOs to publish three new monthly reports: (1) a zonal uplift report; (2) a resource-specific uplift report; and (3) an operator-initiated commitment report. On November 9, 2018, the Commission's Office of Energy Market Regulation issued a letter requesting additional information relating to the contents of the reports the CAISO proposes to publish pursuant to Order No. 844. The CAISO responds to each of the Commission's questions below.

¹ *Uplift Cost Allocation and Transparency in Market Operated by Regional Transmission Owners and Independent System Operators*, 163 FERC P 61,041 (2018) (Order No. 844).

The CAISO submits this filing pursuant to Section 205 of the Federal Power Act (FPA), 16 U.S.C. § 824d, and Section 35.13 of the Commission's regulations, 18 C.F.R. § 35.13. Capitalized terms not otherwise defined herein have the meanings set forth in Appendix A to the CAISO tariff.

II. Response to Office of Energy Market Regulation Questions

1. In Order No. 844, the Commission defined an operator-initiated commitment as “a commitment made after the day-ahead market for a reason other than minimizing the total production costs of serving load.”² In its transmittal letter, CAISO does not state whether it will be reporting commitments arising from the Residual Unit Commitment (RUC) process³ in the Operator-Initiated Commitment Report. Please explain whether CAISO will include commitments arising from the RUC process in the Operator-Initiated Commitment Report, and if not, why.

CAISO Response

The CAISO’s September 7, 2018 compliance filing did not state that the CAISO would include commitments arising from the RUC process because Order No. 844 defined an operator-initiated commitment to mean “a commitment after the day-ahead market, whether manual or automated, for a reason other than minimizing the total production costs of serving load.”⁴ The CAISO’s tariff provides that the RUC is part of the day-ahead market process; it occurs after the integrated forward market.⁵ In the event that the integrated forward market does not commit sufficient resources to meet the CAISO’s forecast demand, the CAISO commits additional resources and identifies additional capacity to ensure sufficient resources are online to meet demand for each hour of the next trading day.⁶ In the RUC, the CAISO uses a security constrained unit commitment optimization and optimizes commitment costs in order to select additional capacity. In addition, the CAISO currently publishes total RUC awards for each operating hour by transmission area on its open access same time information system.

Notwithstanding these factors, the CAISO acknowledges that the RUC is a reliability function that occurs after the CAISO’s integrated forward market clears bid-in supply and demand to minimize total production costs. The CAISO understands that the Commission and stakeholders may consider the RUC process a form of operator-initiated commitment contemplated by Order No. 844. The CAISO also acknowledges

² Order No. 844, 163 FERC ¶ 61,041 at P 33.

³ The RUC process is a reliability function for committing resources and procuring RUC capacity not reflected in the Day-Ahead Schedule following the Integrated Forward Market, in order to meet the difference between the CAISO’s demand forecast and the demand reflected in the Day-Ahead Schedules for each trading hour of the trading day. CAISO Business Practice Manual for Market Instruments, Section 2.1.3 “Residual Unit Commitment.”

⁴ Order No. 844 at P 100.

⁵ See generally CAISO tariff section 31.5; see also CAISO Business Practice Manual for Market Operations section 2.3.1, available at https://bpmcm.caiso.com/BPM%20Document%20Library/Market%20Operations/BPM_for_Market%20Operations_V57_clean.doc.

⁶ *Id.*

that the format it currently uses to publish RUC awards does not in all respects match the format of the operator-initiated commitment report directed by the Commission. For these reasons, the CAISO proposes to include commitments made through the RUC process as part of its Order No. 844 operator-initiated commitment report. Under this approach, the operator-initiated commitment report would identify MW values committed by the RUC process at a resource level above the MW value that cleared the integrated forward market. The CAISO would identify these commitments by day and transmission zone, and the CAISO would also identify a reason as well as the start time for each commitment. The reason for RUC awards will generally reflect system wide capacity needs and the start time will correlate with an operating hour for the subsequent trading day. The CAISO will not identify resource names in its operator-initiated commitment report. The tariff language the CAISO submitted as part of its September 7, 2018 compliance filing is broad enough to encompass reporting RUC awards. As a result the CAISO is not proposing additional tariff revisions addressing operator-initiated commitment reports in this filing.

2. CAISO proposes to report five categories of uplift that correspond to certain charge codes in its proposed Zonal Uplift Report.⁷ One of these categories is RTM Bid Cost Uplift, which CAISO states “corresponds to CAISO charge code 6620 - RUC and RTM Bid Cost Recovery Settlement.”⁸
 - a. The Configuration Guide for Charge Code 6620 - RUC and RTM Bid Cost Recovery Settlement states that this charge code applies over the CAISO Control Area.⁹ The Configuration Guide for Charge Code 66200 - EIM - RUC and RTM Bid Cost Recovery Settlement states that this charge code applies over an Energy Imbalance Market (EIM) area.¹⁰ CAISO’s transmittal letter does not specify whether uplift payments under Charge Code 6620 will include uplift payments in the EIM areas under charge code 66200 – EIM – RUC and RTM Bid Cost Recovery Settlement.
 - i. Please clarify whether CAISO’s reporting of uplift payments under Charge Code 6620 will encompass uplift payments in the EIM areas under Charge Code 66200.

⁷ CAISO also proposes to report uplift payments to resources for these same categories of payments, based on the same charge codes, in its proposed Resource-Specific Uplift Report. CAISO Transmittal Letter at 8.

⁸ *Id.* at 5-6.

⁹ Configuration Guide: RUC and RTM Bid Cost Recovery Settlement: CC 6620.

¹⁰ Configuration Guide: RTM Bid Cost Recovery EIM Settlement: CC 66200.

1. If CAISO does not intend to report uplift payments paid to EIM participating resources under Charge Code 6620 or Charge Code 66200, please explain why.
2. To the extent that Charge Code 6620 reflects uplift payments to resources in the EIM areas, please confirm that these payments will be reported by EIM balancing authority area in the Zonal Uplift Report.

CAISO Response

In Order No. 844, the Commission directed that each RTO/ISO publish within 20 days of the end of each month a report that discloses the total daily uplift payments in dollars in each category of uplift paid to resources in each transmission zone.¹¹ In its September 7, 2018 compliance filing, the CAISO explained that it would include uplift paid to EIM participating resources by EIM balancing authority areas in its zonal uplift report. The CAISO explained that for purposes of settling any load charges in the EIM, such as neutrality accounts, the CAISO issues a settlement statement to the applicable EIM entity's scheduling coordinator based on its measured demand. The granularity of that settlement is at the EIM balancing authority area level.¹²

The CAISO identified *RTM Bid Cost Uplift* as one of the categories of uplift it would report. This uplift category reflects the sum of various bid costs of a resource in the CAISO's real-time market netted against the resource's real-time market revenue.¹³ These amounts also include bid costs from the CAISO's RUC process.¹⁴ The CAISO explained this uplift category corresponds to CAISO charge code 6620 – RUC and RTM Bid Cost Recovery Settlement. This charge code calculates the combined RUC and real-time market bid cost recovery settlement for bid cost recovery eligible resources.¹⁵ The CAISO neglected to specify that for the EIM, RTM Bid Cost Uplift also corresponds to CAISO charge code 66200 – RTM Bid Cost Recovery EIM Settlement. The CAISO intends to incorporate uplift payments associated with this charge code in its zonal uplift report and resource-specific uplift report.

¹¹ Order No. 844 at P 50.

¹² See the CAISO's September 7, 2018 compliance filing transmittal letter at pp 4-5, 7-8.

¹³ CAISO tariff section 11.8.5.2.

¹⁴ *Id.*

¹⁵ A copy of the CAISO configuration guide for Charge Code 6620 is available at: <https://bpmcm.caiso.com/Pages/SnBBPMDetails.aspx?BPM=Settlements%20and%20Billing>.

3. In Order No. 844, the Commission required all RTO/ISOs to include all uplift payments made to generators in the Zonal and Resource-Specific Uplift reports.¹⁶ The Commission explained that “uplift payments reflect the portion of the cost of reliably serving load that is not included in market prices.”¹⁷ The Commission also clarified that “RTOs/ISOs must report all uplift payments to resources and not just those resulting from deviations from day-ahead schedules in both the Zonal Uplift Report and the Resource-Specific Uplift Report.”¹⁸ The Commission directed RTOs/ISOs to, among other things, publish a report disclosing total daily uplift payments in dollars in each category of uplift paid to resources in each transmission zone. Please indicate whether each of the following charge codes is used to provide uplift payments to resources. To the extent any of the listed charge codes is used to provide uplift payments to resources, please explain why CAISO does not propose to report payments under these charge codes in its Zonal Uplift Report or Resource-Specific Report.
 - a. Charge Code 691 - Emissions Cost Payment
 - b. Charge Code 692 - Start Up Cost Payment
 - c. Charge Code 6800 - Day Ahead Residual Unit Commitment (RUC) Availability Settlement

CAISO Response

CAISO charge codes 691 and 692 are legacy charge codes. The configuration guides for these charge codes were last updated on April 1, 2009, the date on which the CAISO implemented its nodal markets. As explained in these configuration guides, charge code 691 provides for the reimbursement of emissions eligible resources (*i.e.*, resources eligible for bid cost recovery) for mitigation fees associated with nitrogen oxides (NOx) emissions incurred during a CAISO commitment period.¹⁹ Charge code 692 provides for the reimbursement of fees invoiced to resources associated with start-up fuel costs incurred during a CAISO commitment period.²⁰ As a general matter,

¹⁶ Order No. 844, 163 FERC ¶ 61,041 at PP 50, 75.

¹⁷ *Id.* P 7.

¹⁸ *Id.* P 62.

¹⁹ Settlements and Billing BPM Configuration Guide: Emissions Cost Payment, CC 691, available at: https://bpmcm.caiso.com/BPM%20Document%20Library/Settlements%20and%20Billing/Configuration%20Guides/Cost%20Recovery/BPM%20-%20CG%20CC%20691%20Emission%20Cost%20Payment_5.0.doc.

²⁰ Settlements and Billing BPM Configuration Guide: Start-Up Cost Payment, CC 692, available at: https://bpmcm.caiso.com/BPM%20Document%20Library/Settlements%20and%20Billing/Configuration%20Guides/Cost%20Recovery/BPM%20-%20CG%20CC%20692%20Start-Up%20Cost%20Payment_5.0.doc.

CAISO charge codes for IFM Bid Cost Uplift (charge code 6630) or RTM Bid Cost Uplift (charge code 6620) subsume emission costs or start-up costs. Nevertheless, charge codes 691 and 692 remain active and it is possible that an eligible resource may present an invoice to the CAISO for payment. Accordingly, the CAISO will incorporate these charge codes into its zonal uplift report and resource-specific uplift report. The CAISO anticipates that these reports will reflect null values for these charge codes in the majority of, if not all, intervals. If, in the future, the CAISO obtains authorization from the Commission to retire charge codes 691 and 692, it will remove these uplift categories from the Order No. 844 zonal uplift and resource-specific uplift reports. The CAISO is submitting additional tariff revisions to modify proposed tariff sections 6.5.14 and 6.5.15 to reflect the addition of these uplift categories.

The CAISO utilizes charge code 6800 to make RUC availability payments to resources committed in the RUC process.²¹ These payments reflect the product of awarded RUC capacity and the RUC price specified for each pricing node. Resource adequacy capacity must participate in the RUC with a RUC bid price of \$0/MW. RUC availability payments constitute a capacity payment based on RUC bids. RUC can result in uplift when a resource is committed in the RUC at a price that is below its bid costs. In its September 7, 2018 compliance filing, the CAISO proposed to incorporate these uplift payments as part of its RTM Bid Cost Uplift.

Under Order No. 844, the Commission states that limitations in the ability of the market software to incorporate all reliability considerations can at times result in prices that fail to reflect certain operational challenges. In such situations, the Commission states that “certain resources needed to reliably serve load may not economically clear the market and RTOs/ISOs must take out-of-market actions (*i.e.*, operator-initiated commitments) to ensure system needs are met.”²² The Commission finds these actions give rise to uplift costs.²³ If, as contemplated by the CAISO’s response to question 1, the CAISO will report RUC awards as operator-initiated commitments, then arguably RUC availability payments would constitute uplift even though they result from an economic clearing process. For this reason, the CAISO proposes to incorporate payments made under CAISO charge code 6800 - Day Ahead Residual Unit Commitment Availability Settlement in both its zonal and resource-specific uplift reports. In addition, the CAISO proposes to incorporate charge code 6824 - No Pay Residual Unit Commitment Settlement in both its zonal uplift and resource-specific uplift

[0Guides/Cost%20Recovery/BPM%20-%20CG%20CC%20692%20Start%20Up%20Cost%20Payment_5.0.doc.](#)

²¹ Settlements and Billing BPM Configuration Guide: Day Ahead Residual Unit Commitment (RUC) Availability Settlement, CC 6800, available at: https://bpmcm.aiso.com/BPM%20Document%20Library/Settlements%20and%20Billing/Configuration%20Guides/Cost%20Recovery/BPM%20-%20CG%20CC%206800%20DA%20RUC%20Availability%20Settlement_5.2.doc.

²² Order No. 844 at P 2.

²³ *Id.*

reports.²⁴ This charge code rescinds RUC availability payments for resources under specified circumstances. The CAISO believes charge code 6824 provides a more accurate information on the payments it makes to resources associated with RUC awards. The CAISO is submitting additional tariff revisions to modify proposed tariff sections 6.5.14 and 6.5.15 to reflect the addition of these uplift categories.

4. In CAISO's Report filed in response to the Commission's Order Directing Reports in Docket No. AD14-14-000,²⁵ CAISO lists the categories of uplift in its markets, which include costs related to ancillary services and the flexible ramping constraint. Please explain whether any uplift payments are paid to resources related to the flexible ramping product or ancillary services that are not reflected in the charge codes that CAISO plans to report in its Zonal Uplift Report and Resource-Specific Uplift Report.

CAISO Response

In Order No. 844, the Commission stated its expectation that RTO/ISOs report categories of uplift based on the RTO/ISO's uplift charge codes.²⁶ The CAISO has several categories of uplift in its markets, which include ancillary services bid cost and flexible ramping product bid cost.²⁷ These costs, however, are rolled up into charge codes 6630 (IFM Bid Cost Recovery Settlement) and 6620 (RUC and RTM Bid Cost Recovery Settlement). Accordingly, any uplift payments made to resources related to the flexible ramping product or ancillary services will be reflected in the charge codes the CAISO plans to use for purposes of its zonal uplift report and resource-specific uplift report. The CAISO does make more granular information about sub-categories of uplift publicly available as part of its monthly market performance reports. These reports are made available on the CAISO's website at the following link: <http://www.caiso.com/market/Pages/ReportsBulletins/Default.aspx>.²⁸

III. Effective Date and Request for Waiver of 60-Day Notice Period

²⁴ Settlements and Billing BPM Configuration Guide: No Pay Residual Unit Commitment Settlement, CC 6824, available at: [https://bpmcm.caiso.com/BPM%20Document%20Library/Settlements%20and%20Billing/Configuration%20Guides/Cost%20Recovery/BPM%20-%20CG%20CC%206824%20No%20Pay%20Residual%20Unit%20Commitment%20\(RUC\)%20Settlement_5.4.doc](https://bpmcm.caiso.com/BPM%20Document%20Library/Settlements%20and%20Billing/Configuration%20Guides/Cost%20Recovery/BPM%20-%20CG%20CC%206824%20No%20Pay%20Residual%20Unit%20Commitment%20(RUC)%20Settlement_5.4.doc).

²⁵ Report of the California Independent System Operator Corporation, Docket No. AD14-14-000, at 40 (filed Mar. 4, 2016) (CAISO March 4, 2016 Report) (in response to *Price Formation in Energy and Ancillary Servs. Mkts. Operated by Reg'l Transmission Orgs. & Indep. Sys. Operators*, Order Directing Reports, 153 FERC ¶ 61,221 (2015)).

²⁶ Order No. 844 at P 60.

²⁷ The CAISO replaced its flexible ramping constraint with a real-time flexible ramping product in November 2016. See generally *Cal. Indep. Sys. Operator Corp.*, 156 FERC ¶ 61,226 (2016).

²⁸ See e.g. CAISO Market Performance Report for September 2018 dated November 13, 2018 at 22-32, available at: <http://www.caiso.com/Documents/MarketPerformanceReportforSeptember2018.pdf>.

Order No. 844 took effect on July 9, 2018, and required each RTO/ISO to submit tariff changes in a compliance filing by September 7, 2018. Pursuant to Order No. 844, these tariff changes must take effect no more than 120 days after the date compliance filings are due.²⁹ In its September 7, 2018 compliance filing, the CAISO requested an effective date of January 1, 2019, for its tariff revisions. Based on this effective date, the CAISO proposed to begin posting zonal uplift, resource-specific uplift, and operator-initiated commitment reports for the month January 2019 forward. Under this schedule, the CAISO proposed to post its first Order No. 844 reports as follows:

Report for January 2019 Operations	Date Posted
Zonal Uplift Report	On or before February 20, 2019
Resource-Specific Uplift Report	On or before May 1, 2019
Operator-Initiated Commitment Report	On or before March 4, 2019

In this filing, the CAISO proposes to maintain this schedule and therefore requests the Commission waive its prior notice requirements to make its tariff revisions effective January 1, 2019. Good cause exists to grant a waiver in this instance because it would allow the CAISO to maintain the schedule for posting these reports as contemplated by Order No. 844 and enhance the transparency of about uplift payments and reasons for uplift payments in the CAISO's markets.

The CAISO does anticipate that the addition of RUC awards to the Order No. 844 operator-initiated commitment report and the addition of charge codes to the zonal and resource-specific reports will require design and testing activities to ensure that information from the CAISO's market systems correctly populates the data needed for these report. In the event the CAISO experiences problems with this effort, it will submit a subsequent pleading requesting authority to change the schedule for posting its Order No. 844 reports. However, in the event the CAISO needs more time to post its reports, the CAISO still proposes to post data in its Order No. 844 reports starting as of January 1, 2019.

IV. Conclusion

The CAISO has and will continue to make information about uplift payments and the reasons for uplift payments transparent to market participants and other stakeholders. The CAISO respectfully requests that the Commission accept its September 7, 2018 compliance filing, as supplemented by this filing, to be in full compliance with Order No. 844.

²⁹ Order No. 844 at P 141.

Respectfully submitted,

By: /s/ Andrew Ulmer

Roger E. Collanton
General Counsel
Anthony J. Ivancovich
Deputy General Counsel
Andrew Ulmer
Director – Federal & Regulatory Affairs

*Counsel for California Independent System
Operator Corporation*

Attachment A – Clean Tariff

Compliance with Order No. 844 Response to Deficiency Letter

California Independent System Operator Corporation

6.5.14 Order No. 844 Zonal Uplift Report

Within 20 days of the end of each calendar month, the CAISO will post on OASIS a monthly report reflecting daily payments to resources by transmission zone within the CAISO or EIM Entity Balancing Authority Area for each of the following categories of costs:

- (a) IFM Bid Cost Uplift;
- (b) RTM Bid Cost Uplift;
- (c) Exceptional Dispatch uplift;
- (d) Excess Cost Payments;
- (e) monthly Exceptional Dispatch CPM payments;
- (f) Emissions Cost payments;
- (g) Start-Up Cost payments;
- (h) RUC Availability Payments; and
- (i) Payment Rescission of RUC Availability Payments.

For purposes this report, a transmission zone within the CAISO shall reflect the Transmission Access Charge Area of each Participating Transmission Owner. For purposes this report, a transmission zone

6.5.15 Order No. 844 Resource-Specific Uplift Report

Within 90 days of the end of each calendar month, the CAISO will post on OASIS a monthly report reflecting monthly payments to resources for each of the following categories of costs:

- (a) IFM Bid Cost Uplift;
- (b) RTM Bid Cost Uplift'
- (c) Exceptional Dispatch uplift;
- (d) Excess Cost Payments;
- (e) monthly Exceptional Dispatch CPM payments;
- (f) Emissions Cost payments;
- (g) Start-Up Cost payments;
- (h) RUC Availability Payments; and
- (i) Payment Rescission of RUC Availability Payments.

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Attachment B – Marked Tariff

Compliance with Order No. 844 Response to Deficiency Letter

California Independent System Operator Corporation

6.5.14 Order No. 844 Zonal Uplift Report

Within 20 days of the end of each calendar month, the CAISO will post on OASIS a monthly report reflecting daily payments to resources by transmission zone within the CAISO or EIM Entity Balancing Authority Area for each of the following categories of costs:

- (a) IFM Bid Cost Uplift;
- (b) RTM Bid Cost Uplift;
- (c) Exceptional Dispatch uplift;
- (d) Excess Cost Payments; ~~and~~
- (e) monthly Exceptional Dispatch CPM payments;

(f) Emissions Cost payments;

(g) Start-Up Cost payments;

(h) RUC Availability Payments; and

(i) Payment Rescission of RUC Availability Payments.

For purposes this report, a transmission zone within the CAISO shall reflect the Transmission Access Charge Area of each Participating Transmission Owner. For purposes this report, a transmission zone

6.5.15 Order No. 844 Resource-Specific Uplift Report

Within 90 days of the end of each calendar month, the CAISO will post on OASIS a monthly report reflecting monthly payments to resources for each of the following categories of costs:

- (a) IFM Bid Cost Uplift;
- (b) RTM Bid Cost Uplift;
- (c) Exceptional Dispatch uplift;
- (d) Excess Cost Payments; ~~and~~
- (e) monthly Exceptional Dispatch CPM payments;

(f) Emissions Cost payments;

(g) Start-Up Cost payments;

(h) RUC Availability Payments; and

(i) Payment Rescission of RUC Availability Payments.

* * * * *

CERTIFICATE OF SERVICE

I certify that I have served the foregoing document upon the 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 Folsom, California, this 7th day of December, 2018.

/s/ Grace Clark
Grace Clark