

148 FERC ¶ 61,111
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Chairman;
Philip D. Moeller, John R. Norris,
Tony Clark, and Norman C. Bay.

California Independent System Operator Corporation

Docket No. ER14-639-000

ORDER ON COMPLIANCE FILING

(Issued August 11, 2014)

1. On December 17, 2013, the California Independent System Operator Corporation (CAISO) submitted a filing to comply with the requirements of Order No. 784.¹ In this order, we accept in part and reject in part CAISO's compliance filing and direct CAISO to submit an additional compliance filing within 30 days of the date of this order, as discussed below.

I. Background

2. On July 18, 2013, the Commission issued Order No. 784 to foster competition and transparency in ancillary services markets. Order No. 784 required, *inter alia*, that each public utility transmission provider (1) add to its open access transmission tariff (OATT), Schedule 3 a statement indicating that it will take into account the speed and accuracy of regulation resources in its determination of reserve requirements for Regulation and Frequency Response Service, including accounting for speed and accuracy as it reviews whether a self-supplying customer has made "alternative comparable arrangements" as

¹ *Third-Party Provision of Ancillary Services; Accounting and Financial Reporting for New Electric Storage Technologies*, Order No. 784, 78 Fed. Reg. 46178 (July 30, 2013), FERC Stats. & Regs. ¶ 31,349 (2013), *order on clarification*, Order No. 784-A, 146 FERC ¶ 61,114 (2014).

required by the Schedule;² and (2) post certain Area Control Error data on its open access same-time information system (OASIS).³

3. The Commission explained that transmission customers that considered using their own or third-party resources to self-supply Regulation and Frequency Response Service are required to demonstrate to the public utility transmission provider that they have made “alternative comparable arrangements.”⁴ However, the *pro forma* OATT provided no information with regard to how the determination of “alternative comparable arrangements” should be made, and contained no express obligation on the part of the transmission provider to consider the relative speed and accuracy of resources a customer might desire to use in self-supplying Regulation and Frequency Response Service. The Commission further stated that, if the performance characteristics of a transmission provider’s regulation resources differed from those associated with a customer’s regulation resources, the transmission provider may under- or overstate the regulation reserve requirements for a customer seeking to self-supply Regulation and Frequency Response Service and, thus, impair a transmission customer’s ability to self-supply regulation requirements at the lowest possible cost.⁵ Thus, the Commission determined that certain reforms were necessary in order to limit opportunities for potential discrimination in the provision of regulation service by public utility transmission providers.⁶

4. Therefore, the Commission required each public utility transmission provider to revise its OATT Schedule 3 (Regulation and Frequency Response Service) to include the following *pro forma* statement:

The Transmission Provider will take into account the speed and accuracy of regulation resources in its determination of Regulation and Frequency Response reserve requirements, including as it reviews whether a self-supplying Transmission Customer has made alternative comparable arrangements. Upon request by the self-supplying Transmission Customer, the Transmission Provider will share with the Transmission

² Order No. 784, FERC Stats. & Regs. ¶ 31,349 at PP 1, 111.

² *Id.* at PP 1, 116.

⁴ *Id.* P 112.

⁵ *Id.*

⁶ *Id.* P 111.

Customer its reasoning and any related data used to make the determination of whether the Transmission Customer has made alternative comparable arrangements.⁷

5. In addition, to ensure a level of transparency adequate to support self-supply decision-making by transmission customers, and to aid the transmission customer's ability to make an "apples-to-apples" comparison of regulation resources, Order No. 784 amended Part 37 of the Commission's regulations⁸ to require each public utility transmission provider to post historical one-minute and ten-minute Area Control Error data on its OASIS website.⁹

II. Compliance Filing

6. On December 17, 2013, CAISO submitted a compliance filing in response to Order No. 784. In its filing, CAISO states that its current tariff, without revision, is consistent with or superior to the Commission's Order No. 784 directive for transmission providers to take into account the speed and accuracy of regulation resources in determining reserve requirements for these services.¹⁰ CAISO also states that it will comply with the Commission's Order No. 784 directive to post historical one-minute and ten-minute Area Control Error data on its OASIS website, as discussed below.

7. In its filing, CAISO explains that it procures regulation up and regulation down through scheduling coordinators that submit bids to self-provide ancillary services from resources that meet technical certification requirements.¹¹ CAISO states that it attempts to procure 100 percent of its ancillary services requirements in the day-ahead market, but may also procure incremental regulation up and regulation down through the real-time unit commitment process. CAISO explains that it establishes minimum procurement

⁷ *Id.* at Appendix B.

⁸ 18 C.F.R. § 37.6(k) (2013).

⁹ Order No. 784, FERC Stats. & Regs. ¶ 31,349 at PP 1, 116.

¹⁰ CAISO's December 17, 2013 Compliance Filing (CAISO Filing) does not contain tariff revisions.

¹¹ Regulation up and regulation down are ancillary services provided by resources certified to respond automatically to control signals in an upward or downward direction to balance demand and resources in real-time. *Id.* at 3.

requirements for regulation up and regulation down services to meet applicable reliability standards and may establish more stringent criteria as conditions warrant.¹²

8. CAISO asserts that, in compliance with Order No. 755,¹³ which governs the compensation of frequency regulation in organized wholesale power markets, regulation resources in its market are compensated through a two-part system based on the actual service the resource provides. The compensation consists of both capacity and performance payments.¹⁴ Under its market design revised in compliance with Order No. 755, CAISO explains that it awards economic bids for regulation capacity and mileage separately to meet its requirements based on its forecasts and historical data.¹⁵ CAISO states that it determines capacity requirements based on a system-wide mileage multiplier that estimates the performance of resources with regulation up or down capacity awards and then selects the resources to receive capacity and mileage awards based on resource-specific mileage multipliers.

9. CAISO states that a resource-specific mileage multiplier is calculated to identify the maximum mileage award or self-provision that resource can receive through its market optimization. CAISO asserts that the resource-specific multiplier assesses the expected actual mileage that the resource may provide and ensures the efficient selection of resources to satisfy mileage and regulation capacity requirements as part of the co-optimization. Then, during the market run, CAISO uses a control signal to instruct mileage from resources and issues performance payments based on how accurately the resource responds to the control signal. Thus, CAISO asserts resources that respond faster to control signals can offer more of their capacity as regulation and resources that respond with greater accuracy will receive a higher performance payment. CAISO argues that this process is consistent with or superior to the directive in Order No. 784 to take into account the speed and accuracy of regulation resources in its determination of requirements because its market design takes into account these factors as part of its processes to ensure regulation requirements are met through economic bids or accepted self-provisions. In addition, CAISO asserts that a resource's speed and accuracy are

¹² *Id.* at 2 n.10.

¹³ *Frequency Regulation Compensation in the Organized Wholesale Power Markets*, Order No. 755, 76 FR 67260 (Oct. 31, 2011), FERC Stats. & Regs. ¶ 31,324 (2011), *order denying reh'g*, Order No. 755-A, 138 FERC ¶ 61,123 (2012).

¹⁴ CAISO Filing at 4 (citing *Cal. Indep. Sys. Operator Corp.*, 140 FERC ¶ 61,206 (2012). *See also Cal. Indep. Sys. Operator Corp.* 142 FERC ¶ 61,233 (2013)).

¹⁵ *Id.*

explicit factors in assessing how much capacity the resource may offer and in establishing the resource's payment received for performance.¹⁶

10. To comply with the Commission's directive concerning the posting of historical Area Control Error data, CAISO proposes to post historical one-minute and ten-minute data on its OASIS for the most recent calendar year on an annual basis.¹⁷ CAISO states that it plans to build the necessary software functionality to post Area Control Error data for the 2013 calendar year as part of its spring 2014 release.

III. Notice of Filing

11. Notice of CAISO's compliance filing was published in the *Federal Register*, 78 Fed. Reg. 78,348 (2013), with interventions, comments, and protests due on or before January 7, 2014. Timely motions to intervene were filed by the California Department of Water Resources State Water Project, NRG Companies, and Pacific Gas and Electric Company.¹⁸ No comments or protests were filed.

IV. Discussion

A. Procedural Matters

12. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2013), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

¹⁶ *Id.* at 4-5.

¹⁷ *Id.* at 5.

¹⁸ The NRG Companies are: NRG Power Marketing LLC, GenOn Energy Management, LLC, Cabrillo Power I LLC, Cabrillo Power II LLC, El Segundo Power LLC, NRG Delta LLC, NRG Marsh Landing LLC, NRG California South LP, High Plains Ranch II, LLC, Long Beach Generation LLC, NRG Solar Alpine LLC, NRG Solar Borrego I LLC, NRG Solar Blythe LLC, NRG Solar Roadrunner LLC and Avenal Solar Holdings LLC.

B. Substantive Matters**1. Speed and Accuracy of Regulation Resources****a. Compliance Filing**

13. In its compliance filing, CAISO asserts that its tariff, specifically those provisions related to its Order No. 755 market design, are consistent with or superior to the revisions directed in Order No. 784. CAISO states that it establishes regulation reserve “capacity requirements that are informed by a system-wide mileage multiplier that estimates the performance of resources with a regulation up or regulation down capacity award.”¹⁹ CAISO adds that it accepts capacity and mileage bids to “meet its requirements based on its forecasts and historical data.”²⁰

14. CAISO also argues that speed and accuracy are “explicit factors in both assessing how much capacity a resource may offer as regulation up or regulation down [and] informing the performance payments that a resource receives for responding to [CAISO’s] control signals.”²¹ CAISO adds that resources that respond faster and more accurately to its control signals will have greater opportunities to provide regulation capacity into the market and will receive greater performance payments. Therefore, CAISO asserts that its current tariff is consistent with or superior to the Order No. 784 directive and further modification is unnecessary.²²

b. Commission Determination

15. We find that CAISO has failed to demonstrate that its existing tariff is consistent with or superior to the reforms directed by Order No. 784. The first sentence of the new *pro forma* Schedule 3 language required by Order No. 784 reads as follows: “The Transmission Provider will take into account the speed and accuracy of regulation resources in its *determination of Regulation and Frequency Response reserve requirements*, including as it reviews whether a self-supplying Transmission Customer has made alternative comparable arrangements.”²³ CAISO’s filing does not describe in

¹⁹ CAISO Filing at 4.

²⁰ *Id.*

²¹ *Id.* at 4-5.

²² *Id.* at 6.

²³ Order No. 784, FERC Stats. & Regs. ¶ 31,349 at Appendix B (emphasis added).

sufficient detail how it accounts for speed and accuracy in determining its reserve requirements for regulation and frequency response. Rather, CAISO states that it determines capacity requirements based on a system-wide mileage multiplier that estimates the performance of resources with regulation up or regulation down capacity awards. While a process that bases regulation capacity requirements on resource performance could be consistent with this Order No. 784 directive, the lack of detail as to how the system-wide mileage multiplier estimates resource performance, how the multiplier affects the system-wide capacity requirement, and how this process would be applied to self-supplying customers, leaves the Commission unable to find that CAISO's current market design is, as CAISO argues, consistent with or superior to Order No. 784's directive to amend its tariff to include the *pro forma* language discussed above.

16. In addition, we have not identified any apparent conflict between the Order No. 784 *pro forma* tariff provision and our understanding of the high-level description CAISO provides of its process for determining regulation capacity requirements, which is based on the use of a system-wide mileage multiplier. For example, in the event that regulation resources are projected to display relatively low performance (i.e., relatively low speed and/or accuracy in responding to automatic generation control dispatch signals), we expect that CAISO would adjust the system-wide mileage multiplier to produce relatively higher regulation capacity requirements. In contrast, when regulation resources are projected to display relatively high performance (i.e., higher speed and/or accuracy in response to automatic generation control dispatch signals), we expect that CAISO would adjust the system-wide mileage multiplier to produce relatively lower regulation capacity requirements. Based on this understanding of CAISO's current tariff and the limited information provided in CAISO's compliance filing, we believe that adopting the *pro forma* language would be consistent with CAISO's stated processes for determining regulation capacity requirements and therefore direct CAISO to add the Order No. 784 *pro forma* language to its tariff. Furthermore, we note that CAISO has neither claimed nor demonstrated that the addition of the *pro forma* language to its tariff would adversely impact its market operations. Therefore, given CAISO's failure to demonstrate how its current tariff is consistent with or superior to the Order No. 784 directive, we reject CAISO's compliance filing in part and direct CAISO to submit a compliance filing within 30 days of the date of this order to revise its tariff to include the Order No. 784 *pro forma* language, as discussed above.

2. Area Control Error Data

17. We find that CAISO's proposal to post historical one-minute and ten-minute Area Control Error data on its OASIS each year beginning with calendar year 2013 as part of its spring 2014 release satisfactorily complies with the directives of Order No. 784. Therefore, we accept CAISO's commitment to post historical Area Control Data on its OASIS, consistent with the directive of Order No. 784.

The Commission orders:

(A) CAISO's compliance filing is hereby accepted in part and rejected in part, as discussed in the body of this order.

(B) CAISO is hereby directed to submit a new compliance filing within 30 days of the date of this order, as discussed in the body of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.