

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY MARKET REGULATION

In Reply Refer to:
California Independent System
Operator Corporation
Docket No. ER13-2063-000
October 22, 2013

California Independent System
Operator Corporation
250 Outcropping Way
Folsom, CA 95630

Attention: Anna McKenna, Esq.
Counsel for the California Independent System Operator Corporation

Reference: Deficiency Letter

Dear Ms. McKenna:

On July 30, 2013, the California Independent System Operator Corporation (CAISO) filed an amendment to its open access transmission tariff (Tariff) in order to, among other things, make multi-stage generating unit modeling mandatory.¹ Specifically, CAISO proposes to require certain resources that are operable in multiple configurations to register as multi-stage generation (MSG) resources, along with other resources that have multiple operating or regulating ranges that limit the resource to operating in only one of those ranges at any particular point in time. Currently, these resources have the option to model their forbidden operating regions.

With respect to CAISO's proposal to require certain generators to register as MSG resources, CAISO claims that such treatment is necessary in order to (1) address a potential misuse of the current "forbidden region functionality" by generators to gain undue bid cost recovery and market payments and (2) prevent infeasible awards of

¹ On October 17, 2013, CAISO amended the filing to change the requested effective date.

ancillary services.²

Please be advised that your filing is deficient and that the Commission requires additional information in order to process the filing.

(1) CAISO states that a “basic challenge in operating a centralized unit dispatch is how to handle the unique operational and economic parameters of combined-cycle generating units and other resources that have multiple operating or regulating ranges that limit the resource to operating in only one of its configuration ranges at any particular point in time.”³ Please clarify how CAISO’s commitment and dispatch processes allow transitions from one configuration to another. In particular:

- a) Which commitment processes (e.g., Day-Ahead Market Unit Commitment, Residual Unit Commitment, Short-Term Unit Commitment, or Real-Time Unit Commitment) allow an MSG resource to be reconfigured from one stage to another?
- b) How frequently do CAISO’s current commitment and dispatch processes allow such reconfigurations to take place (daily, hourly, every 15 minutes, etc.)?

(2) CAISO states that there are four categories of multi-stage units that will be subject to MSG registration: (i) a combined-cycle unit, except for one-by-one combined cycles that can operate in a single operating mode; (ii) a unit that has more than one forbidden operating region; (iii) a unit that has different operating ranges, each of which has different ancillary services capabilities; or (iv) a unit that has a hold time before or after a transition through a forbidden region.⁴ How many units and how many MWs are represented in each of these four categories?

² CAISO Filing at 4-6.

³ CAISO Filing at 3.

⁴ *Id.* at 8.

(3) CAISO states that “requiring all resources with the ability to operate in multiple operating modes to be modeled as multi-stage generating resources is optimal for the market as a whole.”⁵

- a) Will the proposed requirement that some non-combined-cycle resources be modeled as MSG decrease resource flexibility that is available to the market and system operators by limiting certain resources to potentially narrow ranges of output during operation? To what extent?
 - b) Clarify the potential impacts on reliability associated with the proposal of modeling certain generators as multi-stage generating resources.
 - c) Explain in detail whether CAISO expects negative impacts on reliability if its proposal is not implemented or it is delayed. Address any NERC reliability standard that could be violated if the proposal is not implemented or if it is delayed.
- (4) Will the inclusion of non-combined-cycle resources in the mandatory MSG registration artificially constrain resources in real-time, such that the most efficient operating point will sometimes not be selected?
- a) If so, would the inclusion of non-combined-cycle resources in the mandatory MSG registration prevent such artificially constrained generators from setting the market price, even when it would be efficient for them to do so?
 - b) Has CAISO done any studies on how a potential loss of system efficiency through the adoption of this proposal (as contemplated above) would compare to the current loss of system efficiency being experienced due to the problems that CAISO says it is facing with the current forbidden region functionality? If so, please provide a copy of all such studies.
 - c) Has CAISO considered whether it could make adjustments to its current system to allow for non-combined-cycle resources to be dispatched in real-time across the entire physical range of their output, instead of being artificially constrained to administratively set “Pmin” or “Pmax” limits, as some have alleged? If so, has CAISO compared the costs of addressing the

⁵ *Id.* at 6.

problem between these two approaches? If it has, please provide a copy of all such analyses.

- d) In particular, for resources that have sufficiently fast configuration transitions to make such real-time transitions feasible, has CAISO considered whether it can make adjustments to its current system to either (i) “commit” MSG resources to different configurations between adjacent real-time market intervals when economic to do so, or (ii) otherwise model an MSG resource as having available its full range of output in real-time, even if it were committed to only a particular range of output?
- (5) With respect to CAISO’s proposal to require certain generators to register as MSG resources, CAISO argues that such treatment is necessary in order to both (i) address a potential use of the current “forbidden region functionality” by generators to gain undue bid cost recovery and market payments and (ii) prevent infeasible awards of ancillary services.⁶ Aside from the market changes proposed, can CAISO use existing market design tools at its disposal to identify and prohibit the behavior that leads to the “unwarranted” collection of bid cost recovery described in the filing?

This letter is issued pursuant to 18 C.F.R. § 375.307(a)(1)(v) (2013) and is interlocutory. This letter is not subject to rehearing pursuant to 18 C.F.R. § 385.713 (2013), and a response to this letter must be filed with the Secretary of the Commission within 30 days of the date of this letter by making an amendment filing in accordance with the Commission’s electronic tariff requirements.⁷

The information requested in this letter will constitute an amendment to your filing, and a new filing date will be established, pursuant to *Duke Power Company*, 57 FERC ¶ 61,215 (1991), upon receipt of CAISO’s electronic tariff filing. A notice of amendment will be issued upon receipt of your response.

⁶ CAISO Filing at 4-6.

⁷ *Electronic Tariff Filings*, 130 FERC ¶ 61,047, at PP 3-8 (2010) (stating that an amendment filing must include at least one tariff record even though a tariff revision might not otherwise be needed).

Please send an additional electronic version of your response to Mr. Franklin Jackson at franklin.jackson@ferc.gov.

Failure to respond to this letter within the time period specified may result in an order rejecting your filing. Pending receipt of the above information, a filing date will not be assigned to your filing.

Sincerely,

Steve P. Rodgers, Director
Division of Electric Power
Regulation – West

cc: All Parties