

146 FERC ¶ 61,191
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

California Independent System Operator Corporation Docket Nos. ER13-2063-001
ER14-1004-000

ORDER ACCEPTING TARIFF REVISIONS

(Issued March 20, 2014)

1. On July 30, 2013, as supplemented October 17, 2013 and January 15, 2014, the California Independent System Operator Corporation (CAISO) filed an amendment to its open access transmission tariff to require certain resources that are operable in multiple configurations to register as multi-stage generation resources. In this order, the Commission accepts the tariff revisions for filing, to be effective April 1, 2014, as requested.

I. Background

2. In 2011, CAISO made two emergency tariff amendment filings attempting to mitigate observed adverse market behavior that was leading to an unjustifiable increase in bid cost recovery payments (e.g., uplift payments by CAISO to eligible resources that are dispatched at levels below their day-ahead schedules).¹ According to CAISO, in November 2011, it commenced a stakeholder process to consider what additional refinements to the bid cost recovery mechanism were appropriate in light of the two emergency filings. CAISO states that the stakeholder process identified five potential improvements: (1) revising the 200 percent proxy costs cap on the registered start-up and minimum load costs; (2) improving the monitoring and reporting of bid cost recovery payments; (3) revising bid cost recovery rules specific to intertie resources; (4) modifying the minimum load cost tolerance band; and (5) making registration in multi-stage generation resource modeling mandatory. With respect to the last potential refinement,

¹ CAISO Transmittal at 2 (citing Cal. Indep. Sys. Operator Corp., Tariff Revision and Request for Waiver of Sixty Day Notice Requirements, Docket No. ER11-3856-000 (filed June 22, 2011) and Cal. Indep. Sys. Operator Corp., Tariff Revision and Request for Expedited Treatment, Docket No. ER11-3149-000 (filed Mar. 18, 2011, as amended, Mar. 25, 2011)).

CAISO determined that there were opportunities for certain resources to earn inflated bid cost recovery payments by ignoring dispatch instructions, but maintained that mandatory multi-stage generation resource registration would eliminate the operational inefficiencies leading to such awards.

3. CAISO explains that it determined that the first three issues would be better addressed through existing CAISO procedures and stakeholder processes. CAISO states that, in conjunction with its stakeholders, it determined that the fourth and fifth issues should be considered in the new stakeholder process that preceded the filing of the instant tariff amendments.²

II. Notice of Filing and Responsive Pleadings

4. Notice of CAISO's July 30 Filing was published in the *Federal Register*, 78 Fed. Reg. 49,492 (2013), with comments, protests, and interventions due on or before August 20, 2013. Timely motions to intervene were filed by the City of Santa Clara, California (Santa Clara), Modesto Irrigation District, Northern California Power Agency, and Pacific Gas and Electric Company (PG&E). Southern California Edison Company (SoCal Edison) filed a timely motion to intervene and comments. NRG Companies³ (NRG) and Dynegy Companies⁴ (Dynegy) filed timely motions to intervene and a joint protest. California Department of Water Resources State Water Project (SWP) filed an out-of-time motion to intervene and comments. On September 4, 2013, CAISO filed an answer to the comments and protest. On September 17, 2013, NRG and Dynegy filed an answer responding to CAISO's answer.

² *Id.* at 3. In its original filing on July 30, 2013 (July 30 Filing), CAISO also proposed revisions to sections 11.8.2.1.2, 11.8.3.1.2, and 11.8.4.1.2 of the CAISO tariff to modify the minimum load cost tolerance band test. However, in the October 17, 2013 amendment (October 17 Amendment), CAISO indicated that those revisions were superseded by a separate tariff filing made on September 25, 2013 in Docket No. ER13-2452-000 involving broader changes to bid cost recovery. Accordingly, CAISO no longer proposes revisions to sections 11.8.2.1.2, 11.8.3.1.2, and 11.8.4.1.2 as part of this proceeding.

³ NRG Companies include 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.

⁴ Dynegy Companies include Dynegy Moss Landing, LLC, Dynegy Morro Bay, LLC, Dynegy Oakland, LLC and Dynegy Marketing and Trade, LLC.

5. On October 17, 2013, CAISO filed an amendment to its July 30 Filing to change the requested effective date from November 1, 2013 to April 1, 2014 and to eliminate certain tariff revisions which were no longer applicable to the proceeding.⁵ Notice of CAISO's October 17 Amendment was published in the *Federal Register*, 78 Fed. Reg. 64,488 (2013) with comments, protests, and interventions due on or before November 7, 2013. No interventions, comments, or protests were filed.

6. On October 22, 2013, the Commission issued a deficiency letter informing CAISO that additional information was necessary to process the filing. On November 19, 2013, CAISO filed a motion for extension of time, requesting until January 15, 2014 rather than November 21, 2013 to respond to the deficiency letter. The Commission granted this request in a notice issued November 21, 2013.

7. On January 15, 2014, CAISO filed its response to the deficiency letter in a new docket, Docket No. ER14-1004-000 (Deficiency Response). Notice of CAISO's Deficiency Response was published in the *Federal Register*, 79 Fed. Reg. 4462 (2014) with comments, protests, and interventions due on or before February 5, 2014. Timely motions to intervene were filed by PG&E and Santa Clara. NRG and Dynegy filed a timely protest. On February 20, 2014, CAISO filed an answer to the protest. On March 7, 2014, NRG and Dynegy filed a response to the answer. On March 13, 2014, CAISO filed an answer responding to NRG and Dynegy's March 7, 2014 answer.

III. Discussion

A. Procedural Matters

8. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2013), the filing of timely, unopposed motions to intervene serve to make the movants parties to the proceeding. Further, we will grant SWP's out-of-time motion to intervene given its interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

9. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure⁶ prohibits an answer to a protest or an answer, unless otherwise ordered by the decisional authority. We will accept the filed answers because they have provided information that has assisted us in our decision-making process.

⁵ See *supra* note 2.

⁶ *Id.* § 385.213(a)(2).

B. Mandatory Registration of Multi-Stage Generation Resources

1. CAISO Proposal

10. CAISO states that in response to a Commission directive, the initial design of its Market Redesign and Technology Upgrade market could model a resource's forbidden operating regions.⁷ CAISO states that it found forbidden operating region modeling to be limited in that it did not completely model the unique operational and economic parameters of combined cycle generating units and other resources that may have multiple operating or regulating ranges.⁸

11. To improve on the limitations of forbidden operating region modeling, CAISO states that it developed the multi-stage generation resource modeling functionality. Multi-stage modeling involves modeling the distinct operating modes, or configurations, of generating units with multiple configurations as if each configuration were a distinct unit.⁹ CAISO asserts that the multi-stage modeling and forbidden region modeling have existed in parallel since December 7, 2010. CAISO adds that, to date, a resource that qualifies to register under both functionalities has been able to choose which one it uses and has been generally free to switch back and forth between the two options.¹⁰

12. CAISO states that aside from the general structural limitations of the forbidden region functionality, it has also identified two aspects of forbidden region modeling that could be used to gain undue bid cost recovery and market payments.¹¹ The first is a situation where a generating unit modeled under the forbidden region functionality submits a high real-time energy bid while operating just above its forbidden region.¹² CAISO states that by operating just above a forbidden operating region, a unit has the capability to force CAISO to dispatch the unit at the top of the forbidden operating region, and the resultant energy is settled as instructed imbalance energy that is eligible for cost recovery at the high bid price.¹³ CAISO adds that if the unit was modeled as a

⁷ CAISO Transmittal at 3. A forbidden operating region is a range of output through which a resource can transit but within which it cannot operate reliably.

⁸ *Id.* at 4.

⁹ *Id.*

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.* at 5.

¹³ *Id.*

multi-stage generation resource under the multi-stage generation resource functionality rather than under the forbidden region functionality, then the unit would be dispatched into a lower configuration at a lower output level, thereby decreasing the instructed imbalance energy eligible for bid cost recovery.¹⁴

13. The second situation described by CAISO concerns ancillary services. A unit registered under the forbidden region functionality can be certified to provide ancillary services in one amount below the forbidden region based on the operating characteristics of that region, and for another amount above the forbidden region based on that range's characteristics.¹⁵ According to CAISO, such a unit is considered by the market optimization software to have the maximum of those two ancillary services capacity amounts, thereby allowing the unit to receive an ancillary services award that is not consistent with the operating characteristics of the range in which the resource is actually dispatched. CAISO states that this inconsistency can create two problems: (1) the resource receives an ancillary services award that is infeasible and poses a potential reliability issue because CAISO has under-procured ancillary services; and (2) the resource receives a capacity payment for ancillary services when it could not have delivered energy had it been called upon to do so.¹⁶

14. CAISO states that these issues can be addressed through the use of multi-stage generation resource modeling, under which each operating range is modeled as its own discrete generator and each configuration is separately certified for ancillary services by performing the ancillary services test in each pre-defined region. CAISO maintains that this reduces the likelihood of CAISO granting ancillary services awards that are infeasible.¹⁷

15. CAISO proposes in the instant filing to make participation in the multi-stage generation resource functionality mandatory for all resources with multiple operating modes.¹⁸ CAISO maintains that multi-stage generation resource modeling has operated stably and successfully for over two years and that participants have been able to define the physical limitations and flexibilities of their resources better and bid in their resources in a manner that more accurately reflects the economics of operating within those

¹⁴ *Id.* at 6.

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Id.* at 7.

¹⁸ *Id.*

parameters.¹⁹ CAISO adds that the multi-stage generation resource functionality provides more benefits than penalty-based solutions because it enables CAISO and the scheduling coordinator to manage the resource's participation in the market more effectively and efficiently by modeling their characteristics more accurately.

16. Under CAISO's proposed revisions to section 27.8.1 of the tariff, a resource meeting the definition of "Multi-Stage Generating Resource" will be required to register as such through the CAISO master file registration process. CAISO also proposes to modify the definition of "Multi-Stage Generating Resource" in Appendix A of the tariff and indicate that a multi-stage unit will be a unit that (1) is a combined cycle, except for one-by-one combined cycles that can operate in a single operating mode; (2) has more than one forbidden region; (3) has different operating ranges, each of which has different ancillary services capabilities; or (4) has a hold time before or after a transition through a forbidden region.

17. To address implementation challenges with mandatory multi-stage generation resource registration, CAISO states that per the existing 16-day notice period in section 27.8.1 of the tariff, the first "mandatory" transition would occur on April 16, 2014.²⁰ CAISO proposes to institute a lockout period for the multi-stage status transitions from April 1, 2014 through April 15, 2014. Further, CAISO proposes that any multi-stage unit that wishes to transition voluntarily must submit its parameters and request the transition no later than March 15, 2014, to be effective March 31, 2014.²¹

2. Protests and Comments

18. SWP and SoCal Edison support CAISO's proposed revisions related to mandatory registration of multi-stage generation resources.²² SWP also supports CAISO's exclusion of certain multi-stage generation units that face operating limitations that make it impractical to be modeled as multi-stage generation resources. For example, SWP states its hydro resources face complex restrictions based on CAISO's water delivery needs and such limitations cannot be adequately modeled using the proposed mandatory registration requirement. If at some future time the operating characteristics of SWP resources should change such that they would be defined as multi-stage generation resources, SWP

¹⁹ *Id.* at 8.

²⁰ CAISO October 17 Amendment at 2.

²¹ *Id.*

²² SoCal Edison August 20, 2013 Comments at 2; SWP August 20, 2013 Comments at 1.

states it would expect CAISO to make an exception to the mandatory registration rule for its hydro resources.²³

19. NRG and Dynegy state that they support CAISO's efforts to mitigate adverse market behavior, but they contend CAISO's proposal is overly broad and unnecessarily captures units beyond combined cycle units into the mandatory multi-stage generation resource registration requirement.²⁴ NRG and Dynegy state that mandating registration for resources which have no meaningful physical configuration changes, but simply have different ramp rates across operating ranges or limited ramping capability at or near their minimum load (P_{MIN}), is not just and reasonable.²⁵ NRG and Dynegy maintain that registration can prevent non-combined cycle units from providing economic signals that accurately represent the unit's characteristics.

3. CAISO Answer

20. CAISO states that the Commission should reject NRG and Dynegy's protest as outside the scope of the proceeding.²⁶ CAISO states that from the outset of its stakeholder process, it was clear that multi-stage generation resource functionality would not be limited to combined cycle units.²⁷ CAISO argues that granting NRG and Dynegy's protest would turn the current CAISO proposal into a fundamentally different item from what was considered in the stakeholder process.²⁸

4. NRG and Dynegy's Response

21. In response, NRG and Dynegy argue that their concerns are within the scope of this docket.²⁹ NRG and Dynegy state that where multi-stage generation resource registration has previously been an option for non-combined cycled units, CAISO's proposal seeks to require mandatory registration for the first time. NRG and Dynegy state that, in its answer, CAISO does not address the distinctions between how combined cycle and non-combined cycle resources operate, and the important role that these

²³ SWP August 20, 2013 Comments at 2.

²⁴ NRG and Dynegy August 20, 2013 Limited Protest at 1.

²⁵ *Id.* at 5.

²⁶ CAISO September 4, 2013 Answer at 4.

²⁷ *Id.* at 5.

²⁸ *Id.* at 6-7.

²⁹ NRG and Dynegy September 17, 2013 Limited Answer at 1-2.

resources play in setting price in a locational marginal pricing (LMP) market.³⁰ NRG and Dynegy state that simple-cycle and steam turbine resources have relatively smooth, continuous cost curves, whereas combined cycle resources have multi-stage operating characteristics with separate configurations with separate cost curves. NRG and Dynegy provide an example of a steam turbine unit which, as a consequence of having different ramp rates in three different operating ranges, will be modeled as three separate configurations with three separate minimum load levels or PMINs.³¹

22. NRG and Dynegy state that one of these PMINs could be well near the top of the resource's operating capacity, or PMAX. Further, NRG and Dynegy maintain that if the resource was registered as multi-stage, it would no longer be allowed to set the LMP if dispatched to one of these artificially created PMINs, despite the fact that this PMIN may be close to a resource's full output. NRG and Dynegy argue that preventing resources from setting the LMP has a detrimental impact on rational energy price formation, and will shift significant costs into un-priced and non-transparent uplift charges.³²

5. Deficiency Letter and Responsive Pleadings

23. On October 22, 2013, the Commission issued a deficiency letter to CAISO seeking additional information regarding CAISO's July 30 Filing. Specifically, the Commission sought information regarding CAISO's claims that multi-stage generation resource registration is necessary for certain resources 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 ancillary services.

24. On January 15, 2014, CAISO submitted its Deficiency Response, requesting that the Commission accept its July 30 Filing, as amended October 17, 2013, or in the alternative, accept a minor amendment to the proposal. Specifically, CAISO states that if ordered by the Commission, it would remove the requirement that a resource that "has multiple operating modes, including Regulating Ranges associated with different Ancillary Services capability" be required to register as a multi-stage generation resource solely because it has such differing ancillary services capabilities in different operating modes.³³

³⁰ *Id.* at 3.

³¹ *Id.*

³² *Id.*

³³ Deficiency Response at 1-2.

25. CAISO also states in its Deficiency Response that the multi-stage generation resource functionality does not impose any artificial constraints on resources and that the purpose of the functionality is to reflect actual physical operating constraints, including those of non-combined cycle resources.³⁴ CAISO also notes that under the multi-stage generation resource functionality, each configuration is treated as a distinct generating plant whose operation is mutually exclusive of the other configurations. CAISO explains that scheduling coordinators may bid-in these different configurations simultaneously and CAISO's market clearing price would dispatch the optimal configuration and operating level for the resource. CAISO states that the transition from one configuration to another is, thus, based primarily on the unit's registered physical characteristics, and that although CAISO expects it to happen less frequently, a unit could be transitioned to a new configuration every 15 minutes if economic to do so.³⁵

26. In their protest to the Deficiency Response, NRG and Dynegy state that forcing multi-stage generation resource registration on non-combined cycle units will harm price formation.³⁶ NRG and Dynegy explain that when multi-stage generation resource registration is forced on a steam turbine unit due to hold points, forbidden operating regions, or different ramp rates in different operating regions, this registration creates "slices" in a generator's offer curve which can, in turn, create discontinuous mismatches between a registered cost unit's minimum load offers (which are based on "stale" gas price estimates) and its energy offers (which are based on current gas prices). NRG and Dynegy explain further that when generators are forced to "slice" up their units to construct an offer curve, suppliers cannot manage the risks created simply by procuring gas in the forward markets. Therefore, NRG and Dynegy maintain that suppliers have no good options when it comes to CAISO minimum load costs – they can either bid registered cost and run the risk of being unable to rationally represent the unit to the CAISO's optimization or elect proxy costs and be exposed to operating at a loss during a sharp run-up in gas prices.³⁷ NRG and Dynegy maintain that introducing minimum load levels through mandatory multi-stage generation resource registration exacerbates this problem.³⁸

³⁴ *Id.* at 12-13.

³⁵ *Id.* at 3.

³⁶ NRG and Dynegy February 5, 2014 Protest at 5.

³⁷ *Id.* at 7.

³⁸ *Id.*

27. NRG and Dynegy state that another detriment of mandatory multi-stage generation resource registration is that it will create additional, but artificial, minimum load levels. NRG and Dynegy maintain that these load levels impede rational and effective price formation because they prevent units from setting price when dispatched to these levels.³⁹

28. NRG and Dynegy also argue that the additional minimum load levels distort the bid cost recovery mechanism. NRG and Dynegy assert that when a unit is dispatched below its day-ahead award, its day-ahead bid costs are deemed to be zero but its day-ahead revenues are accounted for as the product of the day-ahead MW award and day-ahead price. As a result, NRG and Dynegy maintain that multi-stage generation resources that are forced to run below their day-ahead awards are assumed to have day-ahead revenues with no associated day-ahead costs, which severely impacts the protection that bid cost recovery is supposed to provide.⁴⁰

29. NRG and Dynegy also maintain that CAISO has not completed any analysis to show that the mandatory multi-stage generation resource registration of non-combined cycle units will result in greater system efficiency or that such registration is necessary to ensure system reliability.⁴¹

30. CAISO responds that NRG and Dynegy have failed to present any compelling evidence that CAISO's proposal would harm market efficiency.⁴² CAISO states that for generators that have multiple and mutually exclusive physical operating modes, the multi-stage generation resource functionality allows CAISO market systems to optimize the appropriate operating mode or configuration. CAISO notes that in the absence of such proposal, CAISO would have to manage these operational limitations through manual interventions such as self-schedules, exceptional dispatch, or derate/rerate tickets in the scheduling and logging system. While NRG and Dynegy argue that CAISO's ability to manage the operational limitations of the non-combined cycles through existing functionality proves that the CAISO proposal is unnecessary, CAISO maintains that these manual interventions are an inferior approach because they are after-the-fact measures that react to what the market optimization or a generating unit has done.⁴³ In contrast, the

³⁹ *Id.*

⁴⁰ *Id.* at 4.

⁴¹ *Id.* at 9-10.

⁴² CAISO February 20, 2014 Answer at 1.

⁴³ *Id.* at 4-5.

multi-stage generation resource functionality permits the market optimization to consider the unit's physical restrictions prospectively, allowing greater overall efficiency.⁴⁴

31. CAISO maintains that NRG and Dynegy's claim that multi-stage generation resource modeling creates artificial constraints for non-combined cycle units misrepresents CAISO's multi-stage generation resource functionality which recognizes existing physical constraints.⁴⁵ CAISO notes that NRG and Dynegy's own example involves a unit with an actual physical restriction that limits its operational flexibility. CAISO states that it fails to see how it is artificial to recognize this physical limitation.⁴⁶ CAISO also asserts that NRG and Dynegy's price formation argument ignores the fact that under the status quo, a unit using the scheduling and logging system to manage a hold time or forbidden region is ineligible to set the marginal price in the direction of the hold or resource limitation.⁴⁷

32. Finally, CAISO states that its cost recovery for multi-stage generation resources provides full opportunity to recover their costs. CAISO further states that NRG and Dynegy's complaints about gas prices and bid cost recovery go to whether or not resources are able to recover for gas price excursions under CAISO's production cost recovery methodology and are therefore unrelated to CAISO's proposal in this proceeding.⁴⁸

33. NRG and Dynegy respond that multi-stage generation resource registration is directly tied to the long-standing fuel compensation issues that have plagued California generators for years. NRG and Dynegy reiterate their position that mandatory multi-stage generation resource registration creates more bid cost recovery due to un-priced generation levels paid by CAISO.⁴⁹

34. In response to NRG and Dynegy, CAISO argues that the separate issues of mandatory multi-stage modeling and gas price accounting are distinct, and that the two issues should be considered in separate proceedings. CAISO also notes that it has recently established a new stakeholder process to discuss other short-term and long-term

⁴⁴ *Id.* at 5.

⁴⁵ *Id.* at 6.

⁴⁶ *Id.* at 7.

⁴⁷ *Id.* at 8.

⁴⁸ *Id.* at 9.

⁴⁹ NRG and Dynegy March 7, 2014 Answer at 2-3.

market design changes that may be appropriate for purposes of incorporating fuel costs in the calculation of commitment costs used in the CAISO markets.⁵⁰

6. Commission Determination

35. We find CAISO's proposal to require certain resources to register as multi-stage generation resources to be just and reasonable. We find that the proposal will more accurately model the operating characteristics of these resources and will therefore benefit market efficiency. We also find that the proposal will assist CAISO's efforts to eliminate the possibility of unintended over-collection that exists under the forbidden operating region functionality. Accordingly, we find CAISO's proposed tariff revisions to be just and reasonable and will accept them, effective April 1, 2014, as requested.

36. We disagree with NRG and Dynegy's objections to the inclusion of non-combined cycle resources in CAISO's proposed requirement for registration as multi-stage generation resources. First, we find that non-combined cycle resources with forbidden zones or hold points have characteristics which justify the modeling of those resources as multi-stage generation resources. We are unpersuaded by NRG and Dynegy's arguments that such constraints are not physical dispatch constraints, and therefore are artificial. On the contrary, we find that such limitations are based on physical dispatch constraints, and that protestors have not provided any compelling reasons why such physical constraints should not be reflected in the limitations considered in the market model. Furthermore, we note CAISO's explanation that such resources would be similarly treated under CAISO's existing forbidden operating region functionality.⁵¹ Thus, we reject NRG and Dynegy's objections related to non-combined cycle resources with forbidden zones or hold points.

37. Further, we accept the proposal's application to non-combined cycle resources that have different ancillary service capabilities across different operating ranges. CAISO proposes to model these resources as if they have dispatch limitations, in order to allow the market model to accurately reflect the different physical ancillary service capabilities in the different "stages." CAISO has described how its proposal, as applied to these resources, will help ensure sufficient ancillary service capability is procured, reduce out-of-market actions by system operators who find themselves short of ancillary service capability, avoid reliability issues associated with short-falls of procured ancillary services, and prevent resources from being compensated for ancillary service capabilities that they do not actually have.

⁵⁰ CAISO March 13, 2014 Answer at 4.

⁵¹ *Id.* at 4-5.

38. As noted by CAISO in its Deficiency Response, such resources could be re-committed between “stages” as frequently as every 15 minutes, if economic to do so. Recognizing that no resource should be dispatched to a binding administrative limit between stages unless it would have been economic (but for the binding limit) to dispatch that resource through that limit to the adjacent stage, we therefore conclude that incidences of binding administrative constraint should be relatively short-lived, and that the concerns raised by NRG and Dynegy related to dispatch and price formation should therefore be limited.⁵² When an administrative limit binds for one of these resources, we expect that the resource would be re-committed through the previously-binding limit in the next 15-minute commitment period (unless there is a significant change in system conditions). Once the resource is re-committed, the resource would be able to be dispatched to all operating points in the new “stage,” and the resource would again be eligible to set the market clearing price. Although such limits do not represent physical energy dispatch limits, as NRG and Dynegy have pointed out, we find that the limits (which do represent limits on physical ancillary service capabilities) are necessary in order to achieve the benefits that CAISO describes. As a result, we find that such limits are not arbitrary and find CAISO’s proposal’s application to non-combined cycle resources that have different ancillary service capabilities across different operating ranges to be just and reasonable.

39. With respect to NRG and Dynegy’s discussion of issues related to bid cost recovery mechanism when gas prices spike,⁵³ we find that such issues are outside the scope of this proceeding. To the extent such concerns are warranted, we find that they apply far more generally than simply to multi-stage generation resources, and thus should be discussed and evaluated as a whole. Therefore, to the extent that Dynegy, NRG, or other parties have concerns about gas price spikes, this is not the appropriate forum for that inquiry.

C. Other Issues

40. SoCal Edison states that as demonstrated by CAISO’s emergency tariff filings, the complexity of the bid cost recovery framework has created vulnerabilities to manipulation in the market. SoCal Edison states that CAISO has identified other potential methods of manipulation as outlined in Docket No. IN11-8 and that market participants may currently be exploiting vulnerabilities.⁵⁴ SoCal Edison requests that the

⁵² We also note that out-of-market actions taken to address ancillary service shortages, which CAISO’s proposal is designed to help reduce, create their own price formation concerns. With the reduction in frequency of these out-of-market actions, the net effect of CAISO’s proposal on price formation will be even further limited.

⁵³ NRG and Dynegy February 5, 2014 Protest at 6.

⁵⁴ SoCal Edison August 20, 2013 Comments at 3.

Commission study the CAISO-identified gaps and order CAISO to act immediately to resolve them. SoCal Edison is also concerned that changes to the bid cost recovery calculations based on the bifurcation of the day-ahead and real-time bid cost recovery processes may introduce new gaps and loopholes unintentionally.⁵⁵

41. In response to SoCal Edison's concerns, CAISO states that it is not aware of any evidence that market participants are currently exploiting vulnerabilities identified in the bid cost recovery mitigation stakeholder process.⁵⁶ CAISO also notes that it and its stakeholders have studied bid cost recovery in the context of today's markets and pending rule changes for a period of almost two years and determined there is no evidence that there are gaps being exploited in today's market that need to be addressed immediately.⁵⁷ In response to SoCal Edison's concern that the bifurcation of the day-ahead and real-time bid cost recovery processes may create unintended loopholes, CAISO states that the bifurcation is not a proposal it has made in the instant filing, and is entirely outside the scope of the filing.

42. We agree with CAISO that SoCal Edison's concerns are outside the scope of this proceeding. However, we note that since the filing of SoCal Edison's comments, the Commission has directed CAISO to revise its monthly reports to increase the transparency of bid cost recovery and include the information from such reports as a standing item on the agenda for the Market Performance and Planning Forum stakeholder meetings.⁵⁸

The Commission orders:

CAISO's tariff filing is hereby accepted, to be effective April 1, 2014.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

⁵⁵ *Id.* at 4.

⁵⁶ CAISO September 4, 2013 Answer at 2.

⁵⁷ *Id.* at 3.

⁵⁸ *Cal. Indep. Sys. Operator Corp.*, 145 FERC ¶ 61,254, at PP 41-42 (2013).