105 FERC ¶ 61, 091
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;
William L. Massey, and Nora Mead Brownell.

California Independent System Operator Corporation — Docket No. ER03-1046-000

ORDER ON PROPOSED TARIFF AMENDMENT NO. 54

(Issued October 22, 2003)

1. In this order, we accept in part and reject in part proposed tariff revisions the California Independent System Operator Corporation (CAISO) filed as Amendment No. 54 to its open access transmission tariff (tariff) and order the CAISO to make a compliance filing. This order benefits customers by clarifying certain provisions of the tariff and by implementing measures to improve market efficiency and enhance communication between the CAISO and market participants.

Background

2. On May 1, 2002 the CAISO submitted its Comprehensive Market Design 2002 (MD02) to be implemented in three Phases: Phase 1 - market power mitigation measures, real-time economic dispatch and the use of a single energy bid curve; Phase 2 - an integrated forward market, including an energy market and procedures for procurement of ancillary services; and Phase 3 - implementation of the full network model, redesigned firm transmission rights, and the integration of congestion management with energy and ancillary services markets.

3. In an order issued July 17, 2002,[1] the Commission approved certain elements proposed for implementation in Phase 1 and directed the CAISO to hold technical conferences to further develop the longer-term elements of MD02. Specifically, the Commission approved the continued use of a West-wide "must offer" provision; and, implementation of automatic mitigation procedures, a safety net bid cap set at $250/MWh, a cap on decremental bids set at -$30/MWh, the use of a single energy bid curve, and real-time economic dispatch. The Commission also approved penalties on uninstructed deviation, subject to the condition that the CAISO implement software improvements which would allow more accurate representation of ramp rates at various

[1] 100 FERC ¶ 61,060 (2002) (July 17 Order).

operating points of a generating unit and would allow real-time communication of a generator's outages, derates, and operating problems.

4. On August 16, 2002, the CAISO filed a request for rehearing of certain aspects of the July 17 Order, including the Commission's decision authorizing the CAISO to implement real-time economic dispatch. In an order issued October 11, 2002,[2] the Commission granted the CAISO's request to delay the implementation of real-time economic dispatch until such time as the CAISO could also impose penalties for uninstructed deviation.

5. To reflect the staged implementation of the market design elements, the CAISO then divided Phase 1 of MD02 into two sub-Phases: Phase 1A, consisting of the market design elements of Phase 1 which had been approved by the Commission without conditions; and Phase 1B, real-time economic dispatch and penalties for uninstructed deviation.

6. On July 8, 2003, pursuant to Section 205 of the Federal Power Act (FPA)[3], the CAISO filed with the Commission Amendment No. 54 to the CAISO Tariff. The CAISO seeks approval for the implementation of the Phase 1B elements of the Real Time Imbalance Energy Market, including approval of Uninstructed Deviation Penalties (UDPs), Real Time Economic Dispatch (RTD), and inclusion of multiple ramp rates and other operational constraints into dispatch decisions. The implementation of the Phase 1B elements of the Real Time Imbalance Energy Market will complete the implementation of all the elements of Phase 1 of CAISO's MD02 that have been approved by the Commission.

Notices and Interventions

7. Notice of CAISO's filing in Docket No. ER03-1046-000 was published in the Federal Register, 68 Fed. Reg. 42,698 (2003), with comments, protests, and interventions due on or before July 29, 2003. On July 23, 2003, the Commission extended the time to intervene and protest until August 12, 2003, as requested by the parties. The parties that filed timely interventions, protests or comments are listed in Appendix A to this order. On August 27, 2003, the CAISO filed an answer (Answer) to the parties' protests listed in Appendix A. On September 10, 2003, Powerex filed an answer to the CAISO's Answer.

8. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2003), the timely, unopposed motions to intervene of the parties listed

[2] 101 FERC ¶ 61,084 (2002) (October 11 Order).

[3] 16 U.S.C. § 824d (2000).

in Appendix A to this order serve to make them parties to this proceeding. Rule 213(a) of the Commission's Rules of Practice and Procedure prohibits an answer to a protest unless otherwise permitted by a decisional authority.[4] However, in this case, we find the CAISO's August 27 Answer and Powerex's September 10 answer to be helpful in the development of the record in this proceeding, and accordingly, we accept them.

Discussion

A. Real Time Security Constrained Economic Dispatch

9. The CAISO has proposed a new real time economic dispatch procedure to replace its existing Balancing Energy Ex Post Price (BEEP) software currently used to issue dispatch instructions. Under the new procedure, the ISO would run a "security-constrained economic dispatch" program every 5 minutes to determine which resources to dispatch at what operating levels to meet real time needs. This procedure would take into account all transmission constraints, local reliability needs, and generator operating constraints, as well as system imbalance energy needs. This approach would eliminate the current two-price system, which results in separate incremental and decremental bid prices in each interval, and would result in a single clearing price in each interval.

10. The RTD software will also calculate a resource's available ancillary service capacity in each dispatch interval. The CAISO proposes a new "no-pay" mechanism which would rescind payments for ancillary services capacity that was awarded based on a greater ramp rate for a resource than the ramp rate at which the resource could actually deliver the energy in real time. The new "no-pay" mechanism would also rescind Regulation Up and Regulation Down payments for regulating capacity that spans operating regions in which a resource is not able to operate for an extended period, but must ramp through as quickly as possible.

Comments

11. Reliant maintains that the CAISO's no-pay Provision for Ancillary Services fails to recognize legitimate operating constraints and unfairly subjects participants to allegations of gaming activity. The CAISO answers that the no-pay adjustment is not a penalty, it merely adjusts the payment to reflect the actual ability of the seller to provide the contracted-for service in real time to make sure that market participants who are responsible for paying for ancillary services get the deliverable capacity they paid for.

[4] See 18 CFR § 385.213(a) (2) (2002).

Commission Decision

12. We find that the CAISO's proposed "no-pay" mechanism for ancillary services appropriately rescinds payment for services which cannot be delivered as contracted-for, and will approve this provision. We will also approve the CAISO's updated version of real time economic dispatch, agreeing with those intervenors who stated that it will provide for greater operational control and dispatch efficiency.

B. Incorporation of Operating Constraints into Dispatch Instructions

1. Multiple Ramp Rates

13. The Commission, in its July 17 Order, conditioned the implementation of Uninstructed Deviation Penalties upon the CAISO's incorporation of multiple ramp rates into its Dispatch Instructions. When issuing Dispatch Instructions, the CAISO currently considers only a single ramp rate per Ancillary Service regardless of the unit's operating output level at the time of Dispatch. The CAISO now proposes to use a function of up to ten different ramp rates over the unit's operating range.

14. Currently, generators are expected to ramp from one hourly Schedule to the next hourly Schedule using the 20-minute ramp schedule specified in the CAISO Tariff. The 20-minute ramp occurs from 10 minutes before the start of the operating hour to 10 minutes into the operating hour, and the corresponding ramp rate is used as a reference to measure uninstructed deviation regardless of the performance capability of the resource. Thus, slow ramping units may incur uninstructed deviations.

15. The CAISO proposes to Dispatch a generating unit to ramp from one hour's Schedule to the next hour's Schedule consistent with the operational ramp rate that reflects its physical performance constraints and operating level, but no faster than a 20-minute ramp. The CAISO will "deem delivered" the difference between the expected ramping performance of the generating unit taking longer to ramp than the 20-minute standard ramp based on its operational ramp rate and the 20-minute scheduled ramp specified in the CAISO Tariff as a component of Instructed Energy. The Ramping Energy Deviation will be settled at the MCP. The CAISO proposes that the Ramping Energy Deviations that fall outside the Tolerance Band (the greater of 3% of the unit's maximum output level or 5 MW) will be subject to Uninstructed Deviation Penalties.

2. Other Operating Constraints

16. The CAISO states that, while not required by the July 17 Order, additional operating constraints aside from ramp rates must be considered so that Dispatch Instructions accurately account for units' operating capabilities. The principal constraints include: Time-Delay to Start, Time-Delay to Respond, Minimum Run Time, Minimum

Down Time, Forbidden Operating Regions, Hold-Levels,[5] Regulation Ranges, Flash-Tank[6] Operating Levels, Physical Scheduling Plant constraints, Ambient Condition Limitations, and Maintenance Condition. Some constraints must be expressly modeled for each unit, while others may be accounted for through de-rates or operating capacity, changes in ramp rates or though bidding strategies. Hold-Levels may be acknowledged through modifications to the minimum generating output level and Flash-Tank Operating levels may be accounted for through use of a slow ramp rate when the unit is on Flash-Tank operation. The new Real Time Dispatch software will utilize these additional operating constraints so that the CAISO can more effectively Dispatch units.

3. Ancillary Service Ramp Rate

17. Prior to the implementation of Phase 1A the CAISO employed separate ramp rates for each Ancillary Service product (e.g., regulation, spinning reserve, non-spinning reserve, replacement reserve, and voltage support). The individual ramp rates were used both to limit the amount of Ancillary Service that a generating resource would be awarded as well as for real-time Dispatch of the Energy associated with that capacity.

18. The CAISO proposes to modify the Tariff to make it clear that Real Time Dispatch Instructions will use the same ramp rate function that is submitted with the single Energy Bid Curve to Dispatch both Supplemental Energy bids and Energy related to awarded capacity for Ancillary Services.

4. Reliability Must Run Ramp Rate

19. Currently, RMR Contracts specify operating level specific ramp rates that are used when issuing Dispatch Instructions under those agreements. These static ramp rates may not be the same ramp rates submitted in the market and used to Dispatch the unit in the market. The CAISO states that this further complicates real-time Dispatch and settlements and that there is no reason for any unit to have different ramp rates associated with the same operating level.

20. The CAISO proposes to extend to all RMR Generating Units an opportunity to amend Schedule A to the RMR contract to use the ramp rate function submitted in the Day-Ahead market for use in ISO Dispatch Instructions similar to that proposed for non-

[5] A Hold Level is an operating point where the resource must operate for some minimum time, typically to allow other equipment to be put in or taken out of service, before it can proceed to a new operating point.

[6] Flash-Tank operations include operation of a steam generating unit at such a low level that just enough fuel is input into the system to permit the unit to stay online but not at a high enough operating level to be dispatched to a higher generating output level.

RMR Participating Generating Units. Should owners of the RMR Generating Units decline, such units would be dispatched by the CAISO using only the ramp rates presently set forth in the applicable RMR Contract for both market and RMR purposes. If RMR Generating Unit owners elect to specify multiple ramp rates, such ramp rates would be incorporated into the applicable RMR Contract through the process set forth for modification of Schedule A to the RMR Contract.

Comments

21. Duke complains that the arbitrary selection of setting the default at the high ramp rate will result in reliability problems if CAISO relies upon it to dispatch the unit to an operating point that the unit cannot physically attain, and unnecessarily increase the risk that a generator will incur UDPs. In contrast, the slow ramp rate limitation would assure the availability of such energy. Duke requests that CAISO modify its proposal to specify that a Must-Offer unit's low ramp rate shall be its default ramp rate.

22. The CAISO states in its reply that it agrees with Duke that it erred in using the high ramp rate and that the default Must Offer ramp rate should be the low ramp rate. The CAISO also states that it has gone beyond what the Commission ordered in the July 17 Order by incorporating additional operating constraints in order to accurately account for the operating capabilities of Generating Units.

Commission Decision

23. The Commission finds that these elements of the proposal are in compliance with its July 17 Order and will conditionally approve the proposal to incorporate these additional operating constraints when issuing dispatch instructions. The Commission will require the CAISO to modify its tariff within 30 days of the date of this order to state that the default must-offer ramp rate will be the low ramp rate, consistent with its Answer.

C. Real Time Interactive Communication of Changes in Resource Operating Constraints

24. The CAISO proposes to use its upgraded scheduling and logging (SLIC[7]) program to provide Scheduling Coordinators the ability to inform the CAISO of changes in availability of their generating resources via an online interface. The CAISO states that it will not levy penalties for uninstructed deviations if the Scheduling Coordinator notifies the CAISO through SLIC either before the issuance of a dispatch instruction or within 30 minutes of any event that prevents the unit from performing to a previously issued dispatch instruction.

[7] SLIC stands for Scheduling and Logging for the ISO of California, the computer-based logging program the CAISO uses for recording all operations data.

Comments

25. Metropolitan requests that CAISO be required to provide electronic confirmation of the SLIC communication regarding a unit's inability to comply with dispatch. The CAISO answers that De-rates and outage information communicated through SLIC will be confirmed electronically. Dispatch Instructions will be provided electronically through the Automated Dispatch System as long as that system is operating. Should the ISO need to provide Dispatch Instructions via phone, a taped record of the conversation will be retained and can be used to resolve disputes.

26. Reliant states that the rules for processing SLIC notifications of de-rate events are unclear and imply that the CAISO intends to pay generators for de-rating. Reliant requests that the CAISO clarify whether this is the case. In its Answer, the CAISO states that, if a unit reports a real-time de-rate, the ISO will issue a decremental instruction to move the unit from its Final Hour-Ahead Schedule to its new limited operating point. The unit will be appropriately charged the MCP for the instruction, since the ISO must procure Imbalance Energy to make up the shortfall. The unit, though it has not moved from its limited operating point, will be deemed to have complied with the instruction (it is also appropriate to consider that it is the instruction that is deemed in this case) and, though the Scheduling Coordinator will be charged the MCP for the decremental instruction, UDP will not apply to the shortfall.

Commission Decision

27. We find that the CAISO's proposal to use SLIC meets with the Commission's requirement for the CAISO to allow real-time communication of a generator's outages, derates, and operating problems set forth in the July 17 Order.

D. Uninstructed Deviation Penalties

1. Calculation

28. As proposed, the penalty for positive uninstructed deviations[8] would be calculated as the quantity of energy (uninstructed imbalance energy) in excess of the tolerance band multiplied by a price equal to 100 percent of the applicable market clearing price. In effect, a supplier would not be paid for any overgeneration (energy) in excess of the tolerance band (the penalty offsets the price paid for the energy). The penalty for negative uninstructed deviations would be calculated as the quantity of uninstructed imbalance energy below the tolerance band multiplied by a price equal to 50

[8] A positive uninstructed deviation occurs when a scheduling coordinator produces/delivers more energy than directed based on specific dispatch instructions from the CAISO or the Scheduling Coordinator's final hour-ahead schedule.

percent of the applicable market clearing price. The supplier would also be charged for any replacement energy purchased to make up energy not delivered. Thus, negative uninstructed imbalance energy would be charged at 150 percent of the applicable market clearing price.

Comments

29. Duke suggests that CAISO should be required to modify its UDP structure to adopt a graduated scale of penalties for the range of deviations outside of the tolerance band, with the maximum penalty awarded only to offenders who deviate substantially outside the tolerance band. Duke suggests that a graduated scale would still provide incentive for generators to comply with dispatch instructions without excessively punishing minor offenders.

Commission Decision

30. Duke argued in favor of a graduated scale of penalties in its protests to the CAISO's UDP proposal in the May 1, 2002 MD02 filing. In the July 17 Order, the Commission considered those arguments in approving the CAISO's UDP proposal to penalize positive uninstructed deviations at 100 percent of MCP and negative uninstructed deviations at 150 percent of MCP. As Duke has raised no new arguments, we will reject their protest.

2. Aggregation

31. In the July 17 Order, the Commission approved the CAISO's proposal to permit a Market Participant to aggregate and net generation deviations from Schedules and Dispatch Instructions amongst generating resources that connect to the ISO grid through the same grid interconnection point and voltage level. The Commission also approved the CAISO's proposal that generating resources that do not interconnect to the ISO grid at the same interconnection point also may be aggregated if such a proposed aggregation would not affect grid reliability, noting that the CAISO had committed to develop a process to allow market participants to propose such aggregations.

32. The CAISO states that it worked with stakeholders to develop this detailed plan for netting deviations from the Dispatch Operating Point for such aggregated resources and that its proposal is endorsed by stakeholders. Consistent with the July 17 Order, the CAISO proposes that Energy deviations from aggregated resources be netted without regard to whether such deviations were within or outside the tolerance band used to define deviations for purposes of the uninstructed deviation penalties.

Comments

33. Reliant protests that the CAISO's proposed rules on aggregation in Amendment No. 54 appear to be more restrictive than described in the CAISO's May 1, 2002 MD02 filing and questions the requirement that aggregated units have a physical interconnection. The CAISO responds that the request for a description of units' physical interconnection is to be used to allow the CAISO to understand how units may be required to operate together and clarifies that it is not seeking to impose a further condition on aggregation.

34. California Generators state that CAISO's proposed UDP aggregation criteria is vague and inadequately documented and should be re-filed. The CAISO responds that the first draft of the aggregation operating procedure was filed as Attachment E to Amendment No. 54 for informational purposes only and commits to publishing the final operating procedure on the CAISO Home Page.

35. California Generators argue that basic aggregations, once approved, should not be subject to temporary suspension. The CAISO answers that aggregations that pose no problems under normal conditions could become unworkable if network conditions change and that such aggregations should be suspended when their effect on grid reliability changes.

Commission Decision

36. While we find the CAISO's proposed rules for aggregation of resources for the purpose of netting deviations to be reasonable and will approve them, we will require that the CAISO include the final aggregation operating procedure in its Tariff to be submitted as part of a compliance filing to this order. We note that, in the event that a market participant believes that it was improperly denied the ability to aggregate deviations, it can request dispute resolution under the CAISO's tariff provisions.

3. Exemptions

37. The CAISO proposed in its May 1, 2002 MD02 Filing that uninstructed deviation penalties would not apply to regulating resources unless such resources were operating outside of their regulating range. The CAISO now proposes to modify the application of uninstructed deviation penalties to resources providing Regulation Energy. The CAISO will penalize a regulating resource when it is deviating (as a result of its own actions, whether voluntary or involuntary, but not as a result of CAISO Dispatch Instructions) from its Schedule by more than the awarded amount of regulation plus the tolerance band of the greater of 5 MW or 3% of the units' maximum operating level.

38. The CAISO will model the expected regulation range based on the expected Dispatch Operating Point consistent with the unit's physical operational capability; that is, the CAISO will adjust the Dispatch Operating Point and regulation range to ensure the range is consistent with a unit's operational ramp rates.

39. The CAISO (1) will not levy uninstructed deviation penalties upon a resource where it provides regulation energy in one hour but not in the following hour and is, at the end of the first hour, above or below its preferred operating point as a result of providing regulation energy; (2) will recognize when a unit is temporarily taken off regulation to move to a new regulation range and will not impose uninstructed deviation penalties in such events; and (3) for Ancillary Services capacity awarded in the CAISO forward markets but not delivered in real time because the operating level ramp rate specified does not permit such delivery, the CAISO will take back capacity and Energy payments for the capacity that subsequently was not available.

40. The CAISO proposes that all System Resource[9] bids that the CAISO pre-dispatches at least forty minutes before the operating hour are subject to UDP if energy from those bids is not subsequently delivered. According to the proposal, the CAISO may pre-dispatch System Resources after forty minutes before the operating hour, but such bids are not required to be held for the CAISO and are not subject to penalties if the bids are no longer available.

Comments

41. SWP and Metropolitan request clarification regarding the application of UDP to out-of-market transactions. Specifically, Section 11.2.4.1.2 should be clarified to state whether the tolerances and other aspects of UDP apply equally to out-of-market transactions.

42. FPLE states that the application of the proposed Uninstructed Deviation tariff language to System Resources is ambiguous. First, the definition of Tolerance Band refers specifically to Generating Units and System Units and includes no reference to System Resources. Second, the definition includes references to characteristics that have no relevance to intertie transactions (such as Pmax).

43. Reliant protests that the CAISO's rules for applying UDP are unduly discriminatory and that Participating Load should be treated similarly to supply.

[9] The CAISO defines a System Resource as a resource located outside of the CAISO Control Area capable of providing Energy and/or Ancillary Services to the CAISO Controlled Grid.

44. California Generators state that the Commission should require the CAISO to clarify that RMR condition 2 units will not be subject to UDP. In its Answer, the CAISO offers to insert Section 11.2.4.1.2(u), which would specify that Condition 2 RMR Units shall be exempt from UDP.

45. PG&E asserts that deviations which occur as a result of the CAISO's use of Automatic Generation Control should not be subject to UDP. In its Answer, the CAISO agrees with PG&E and has committed to undertake modification to Section 11.2.4.1.2(g) to reflect this concern.

Commission Decision

46. We will conditionally approve the CAISO's proposal regarding exemptions from UDP. The Commission will require the CAISO in a compliance filing on Amendment No. 54 to respond to the requests for clarification from SWP, Metropolitan and FPLE regarding the proposed application of UDP to out-of-market transactions and System Resources; and to modify Section 11.2.4.1.2(g) & Insert Section 11.2.4.1.2(u) as it commits to doing in its Answer.

4. Allocation of Revenue

47. Amounts collected as UDP for each settlement interval will first be assigned to reduce the portion of above-MCP costs that would otherwise be assigned pro rata to all scheduling coordinators in that interval. Remaining amounts will then be used to offset CAISO expenses, losses or costs, with the balance deposited in the CAISO surplus account.

Comments

48. PG&E commented that CAISO's proposal to use UDP revenue to reduce the portion of above MCP costs is supportable. However, PG&E also asserted that it may be desirable to apply more of the UDP revenue to offset above MCP costs beyond the interval in which they are received. Specifically, if there are sufficient UDP revenues on a daily basis, PGE states it would be desirable to offset all above market MCP costs, not roll over within an interval to offset other CAISO expenses, losses or costs. In addition, PG&E asserts that the application to offset other CAISO expenses, losses, or costs should be clarified.

49. In its reply, the CAISO believes that no further modification or explanation concerning its allocation proposal needs to be made. The CAISO states that the allocation proposal is consistent with the July 17 Order, and is the same as the proposal submitted in the CAISO's August 16, 2002 MD02 compliance filing.

Commission Decision

50. The CAISO allocation proposal is reasonable and no further modification or explanation concerning its allocation proposal needs to be made. Therefore, we will approve the CAISO's proposal regarding the allocation of UDP revenue as detailed in Section 11.2.4.1.2 (t) of the CAISO tariff.

E. Dispatch and Settlement of Transmission Losses

51. The CAISO currently quantifies transmission losses through calculation of Generator Meter Multipliers (GMMs). The GMM multiplied by metered output reflect transmission losses on energy delivered to a load center. The CAISO quantifies transmission losses on schedules at intertie points using an analogous factor – Tie Meter Multipliers. The CAISO explains that because intertie schedules are usually locked in for an entire hour based on control area checkout procedures, intertie schedules cannot self-provide losses.

52. The CAISO proposes to make the generator's meter the reference point for all dispatch instructions and final hour-ahead schedules. For each final hour-ahead schedule, each SC representing generators or system units shall elect to either: (1) generate sufficient additional energy to meet its respective transmission losses (self-provide for losses), or (2) be financially responsible for its respective transmission loss obligation based on the imbalance energy procured on its behalf by the CAISO. Any SC that elects to self-provide losses for their final hour-ahead schedule will be required to: (1) first notify the CAISO through the use of a flag that it is self-providing losses, and (2) generate enough energy to account for the GMMs to avoid the application of Uninstructed Deviation Penalties. The CAISO's proposal does not, however, allow SCs for System Resources, other than dynamically scheduled System Resources, to self-provide for transmission losses; or (2) allow any SCs to self-provide losses associated with real-time dispatch instructions. Instead, the CAISO proposes to dispatch additional imbalance energy to cover such losses and allocate the charges for those losses to the market. For Metered Subsystems (MSS), losses will be calculated in accordance with the MSS Agreement.

53. Uninstructed Deviation Penalties will apply to energy generated outside of the tolerance band. This tolerance band limit will be 3% of the maximum operating capacity or 5 MW, whichever is greater. If the CAISO maintained its current treatment of losses, generators could be penalized for self-providing losses if doing so took the resource outside of the tolerance band.

Comments

54. Powerex and FPLE claim the CAISO's proposal is discriminatory because it does not allow System Resources to physically self-provide for Transmission Losses. FPLE and Powerex want the CAISO to grant all SCs (including System Resources) the option to physically self-provide Transmission Losses. Reliant and Mirant want the CAISO to permit the self-provision of transmission losses in real time. Further, Reliant and Mirant state that the CAISO has not provided adequate justification for prohibiting the self-supply of resources in real time.

55. The CAISO maintains in its Answer that currently System Resources do not self-provide Transmission Losses and that the modifications proposed in Amendment No. 54 change how the CAISO will treat losses for resources inside the CAISO controlled grid but do not affect the current practice regarding System Resources. When the CAISO and the adjacent Control Area in which the System Resource is located agree on a schedule, this schedule is reflected in the Control Area net interchange numbers. Each Control Area enters these numbers into its Automatic Generation Control systems. The CAISO maintains that to self-provide for losses, the System Resource would have to over-generate their schedule by some amount. Since the Control Area net interchange amounts have already been determined through the Inter-Control Area checkout process, this additional amount would appear as inadvertent interchange, not as the provision of losses.

56. Powerex disputes the CAISO's assertion that System Resources cannot currently self-provide physical transmission losses, pointing out that Section 7.4.1 of the CAISO's tariff currently provides: "Each Scheduling Coordinator shall ensure that it schedules sufficient Generation to meet both its Demand and its Transmission Losses responsibilities as determined in accordance with this Section 7.4." The CAISO proposes to delete this provision from the tariff and only allow Generators or System Units to self-provide for losses. Therefore, Powerex asserts, Amendment No. 54 would remove an option that currently is available to all System Resources.

57. The CAISO's proposal allows resources to self-provide Transmission Losses associated with their Final Hour Ahead Schedule but not in real-time. In CAISO's Answer, CAISO explains that the losses associated with the Final Hour-Ahead Schedule can be determined in advance. In contrast, the generator will not know the real-time GMM that applies to any additional real-time instruction, and could only estimate what losses would be associated with a real-time instruction. The generator cannot self-provide losses associated with real-time instructions above the Tolerance Band, however, since any deviation above the Tolerance Band will be subject to UDP. The CAISO states that to allow otherwise the CAISO would have to create a flexible, complicated and likely expensive Tolerance Band.

Commission Decision

58. We agree with Powerex that the CAISO's proposal would unnecessarily remove an option that currently is available to all scheduling coordinators. We direct the CAISO to continue to permit all SCs, including System Resources, the option of self-providing Transmission Losses.

59. The CAISO has adequately justified its prohibition against System Resources from self-providing resources in real time. Therefore, we reject the arguments of Reliant and Mirant regarding the self-supply of resources in real-time.

F. Five-Minute Dispatch Intervals

60. The CAISO currently uses a ten minute Dispatch Interval. The CAISO states that the current real-time dispatch function, BEEP, was designed and developed based on five-minute dispatch, but due to communication limitations between the CAISO and the SCs, the dispatch interval was changed to ten minutes.

61. Further, when the CAISO replaces the current real time Dispatch algorithm with the Phase 1B real time economic Dispatch algorithm, the existing Balancing Energy Ex Post Price (BEEP) software will be replaced. The CAISO states that the Dispatch Interval is a key design element for the new real time economic Dispatch software. In addition, the standard software commercially available and used by other independent system operators (e.g., PJM, New York ISO and ISO New England) uses five-minute Dispatch intervals. Although the CAISO will retain its current ten-minute settlement interval, the CAISO proposes to adopt the standard five-minute Dispatch interval in order to issue Dispatch instructions at ritual five-minute intervals. However, the CAISO will retain the flexibility to issue intra-interval Dispatch instructions as needed in special circumstances to ensure reliability and to avoid a System Emergency.

Comments

62. PG&E and Duke are concerned that the increased frequency of Dispatch Instructions will increase the risk of penalties, deviations or erroneous UDP. PG&E is concerned that a shorter dispatch period will lead to over reliance on certain types of generation which is more flexible.

63. In its Answer, the CAISO asserts that although the Dispatch Interval is five minutes, UDP would be determined on the ten minute Settlement Interval basis and the risk of incurring penalties would not greatly increase. Moreover, since the Dispatch Instruction would be more consistent at five minutes rather than the current sporadic as-needed basis, there should be less uncertainty about where the resource is expected to be operating. In addition, modeling and accounting for additional unit constraints will also

reduce the uncertainty about the unit's ability to respond to the instruction. With less certainty, the risk of incurring penalties should be reduced.

Commission Decision

64. The Commission notes that pursuant to the CAISO Tariff, the CAISO may set the length of the Dispatch Interval to between five and thirty minutes.[10] In addition, the CAISO has refined the Master File storage capabilities and added SLIC to reduce the uncertainty about a unit's ability to respond. Further, the CAISO will be conducting two months of market simulation with Market Participants prior to implementing the software to ensure it is working. With these safeguards in place, we will accept the proposed five-minute Dispatch Interval.

G. Congestion and Use of Adjustment Bids in Real Time

65. The CAISO proposes to modify certain Tariff sections relating to Inter-Zonal and Intra-Zonal Congestion to reflect the planned implementation of RTD software. Specifically, the CAISO proposes to procure and Dispatch Imbalance Energy zonally when Inter-Zonal Congestion is present in real-time consistent with Real Time Dispatch. Also, the CAISO proposes to use RTD Software for Dispatch of Energy Bids to resolve Intra-Zonal Congestion occurring in real-time.

66. The CAISO also proposes to eliminate the use of Adjustment Bids for managing Inter-Zonal and Intra-Zonal congestion in real-time. The CAISO will continue to use Adjustment Bids in the forward markets to manage Inter-Zonal congestion.

Comments

67. Duke states that Amendment 54's modifications concerning the use of adjustment bids to resolve intra- and inter-zonal congestion and use of the RTD software for dispatch of energy bids for resolution of intra-zonal congestion presuppose the Commission's acceptance of Amendment 50. Duke argues that the proposed changes to Amendment No. 50 should not be incorporated in Amendment No. 54 until the Commission issues a "final order" in the Amendment No. 50 proceeding.

68. The CAISO answers that Duke's suggested approach does not reflect the reality of the status of Amendment No. 50 and that most of Amendment No. 50 was accepted outright in the Commission's May 30, 2003 Order on the amendment. The CAISO further points out that, as to the rest of Amendment No. 50, the Commission directed modifications that the CAISO has already submitted to the Commission in compliance

[10] See CAISO Tariff Appendix A Master Definitions for current definition in the BEEP Interval

filings.[11] Thus, the CAISO believes it is entirely justified in building on language in Amendment No. 50 to draft provisions in Amendment No. 54. The CAISO further states that Duke's approach, if adopted, would most likely cause an unacceptable delay in the implementation of those Amendment No. 54 provisions.

Commission Decision

69. The Commission accepts the CAISO's proposal to eliminate the use of Adjustment Bids for managing Inter-Zonal and Intra-Zonal congestion in real-time. The CAISO's use of the RTD Software for Dispatch of Energy Bids will provide an alternate, more efficient means of resolving congestion.

H. Market Clearing Price

1. Constrained Output Resources

70. Constrained Output Resources are generating resources that cannot easily or economically change load levels and are typically restricted to generating at their full capacity for their unit-specific minimum run time. Current procedures allow Constrained-Output Resources to set the MCP for a full hour, even if dispatched only for part of that hour (i.e., the "stuck price" problem). The CAISO now proposes that Constrained-Output Resources be eligible to set the MCP only for such dispatch intervals when the resource is the marginal unit dispatched to serve Load. In any interval in which no portion of such a unit's output is needed, but due to constraints the unit is still providing energy, the unit would not set the MCP but would receive an uplift payment if its bid is above the MCP.

Comments

71. PG&E believes that allowing block generation to set the MCP could result in excessive costs and recommends that such resources not be permitted to set the MCP.

72. Reliant protests that the CAISO's proposal for offsetting payment of the bid price with "net market revenues" over a 24-hour period is confiscatory. Reliant states that if, as a result of dispatch operations, a unit must operate in periods when it is no longer needed, there is no justification for denying it legitimately earned market profits from other periods.

73. Duke states that the CAISO's proposal to restrict the ability of constrained resources from setting the MCP should be rejected as inconsistent with competitive market outcomes and subject to potential gaming by CAISO. Duke further states that the

[11] 103 FERC ¶ 61,265.

effect of artificially dampening the price signal (the cost of running that resource for its entire minimum run time) is to discourage investment in more flexible and efficient units.

74. The CAISO states in its Answer that Duke's allegation of gaming the MCP by the CAISO is unfounded and that its proposal is consistent with the manner in which the Commission directed the NYISO to treat constrained output resources.[12] The CAISO also notes that its proposal is also consistent with the criteria offered in the Commission's Notice of Proposed Rulemaking on the Standard Market Design.

Commission Decision

75. The Commission agrees with the CAISO's proposal that would permit constrained output resources to set the market clearing price for those Dispatch Intervals in which any portion of such a unit's output is needed by the CAISO to meet real time load. By treating inflexible resources similar to flexible resources, the CAISO will resolve the stuck price problem that results in a higher MCP than would be realized if the CAISO were able to calculate MCP strictly based on the marginal eligible resource dispatched without regard to Minimum Run Times or other constraints. We find that the CAISO's proposal is consistent with Commission direction in NYISO.[13] There, in real time the NYISO allows the fixed block units to set the MCP even when a less expensive unit is backed down to make room for the final dispatch. Units that are backed down to accommodate those that have been scheduled to operate receive a payment of lost opportunity costs to ensure that they are not penalized for following the NYISO's dispatch signal.

2. Performance Requirement

76. Presently, CAISO Tariff Sections 2.5.23.1 and 2.5.23.2.1 provide that the marginal Generating Unit accepted by the CAISO for Dispatch shall set the MCP. The CAISO now proposes to add a performance threshold such that an otherwise eligible unit may set the MCP only if the performance of such a unit's output is within ten percent (10%) of its Dispatch Operating Point. Accordingly, the CAISO proposes new Tariff provisions that direct that only Dispatched Generating Units whose output is between 90% and 110% of the Dispatch Operating Point at the end of the Dispatch Interval are eligible to set the MCP.

Comments

77. Duke requests rejection of CAISO's proposal to establish a new 10%

[12] 92 FERC ¶ 61,073 (2000).

[13] 95 FERC ¶ 61, 121 (2001).

performance requirement in order for a generator to be eligible to set the MCP because it would artificially depress the MCP and penalize all generators who have complied with their dispatch instructions. Duke asserts that the better approach is to address intentional misconduct by a market participant using the mechanisms already available to CAISO and the Commission, and not to distort market outcomes by imposing this unnecessary market requirement.

78. The CAISO states in its reply that misconduct should not be handled on a case-by-case basis and that it is more transparent and equitable to establish clear rules and conditions for setting the MCP than to attempt to selectively enforce general guidelines through the dispute process. The CAISO also argues that the Commission's SMD NOPR recommended ex post pricing and did not preclude the simultaneous application of ex post pricing and uninstructed deviation penalties.

Commission Decision

79. The Commission agrees with Duke that an additional performance requirement is redundant to UDP and the CAISO has other mechanisms at its disposal to confront potential misconduct from Market Participants. Therefore, the Commission finds the CAISO's proposal to establish a new 10% performance requirement in order for a generator to be eligible to set the market clearing price unnecessary.

I. Financial Settlements

80. The CAISO has proposed various modifications to its real-time energy settlements. These changes include: (a) Using a five-minute Dispatch Interval in real-time but retaining a single ten-minute Settlement Interval; (b) Clarifying the settlement process for Instructed and Uninstructed Imbalance Energy; (c) Assuring the recovery of bid costs for extra marginal Energy; and (d) Allocating above Market Clearing Price costs.

1. Five-Minute Dispatch Instructions and Ten-Minute Settlement Intervals

81. As described above, the CAISO is planning to implement a 5-minute Dispatch Interval but will continue to settle Imbalance Energy at a 10-minute Settlement Interval. To accommodate the two five-minute Dispatch Interval prices within a ten-minute Settlement Interval, the CAISO proposes to calculate the following four Ex Post Prices: Dispatch Interval Ex Post Price; Hourly Ex Post Price; Resource Specific Settlement Interval Ex Post Price; and Zonal Settlement Interval Ex Post Price. These are the prices that will be used for Real-Time Energy Settlements.

82. The Dispatch Interval Ex Post Price is equal to the bid price of the marginal resource accepted by the CAISO for Dispatch, subject to certain limitations. Constrained

resources and system resources are not eligible to set the Dispatch Interval Ex Post Price. Also, a Dispatched resource must perform within 10% (i.e., between 90% and 110%) of the relevant Dispatch Operating Point to be eligible to set the Dispatch Interval Ex Post price. The 10% tolerance band limitation does not apply when the CAISO issues emergency Dispatch Instructions or where the unpreventable loss of telemetry prevents the CAISO from assessing the resource=s performance. The Dispatch Interval Ex Post Prices are used to derive the other three Ex Post Prices listed below.

83. The Hourly Ex Post Price in a Settlement Period in each Zone will equal the weighted average of the Dispatch Interval Ex Post Prices in each Zone. The weights are the system total Instructed Imbalance Energy (the sum of the absolute value of both incremental and decremental Energy), except Regulation Energy for the Dispatch Interval. The Hourly Ex Post Prices will vary between Zones when Congestion is present. This price is used in the Regulation Energy Payment Adjustment and in setting Energy Dispatched under the RMR Contract.

84. The newly defined term AResource Specific Settlement Interval Ex Post Price@ will be calculated for each resource under ISO Dispatch. The Resource Specific Settlement Interval Ex Post Price will equal the Energy-weighted average of the applicable Dispatch Interval Ex Post Prices for each Settlement Interval taking into account each resource=s Instructed Imbalance Energy, except Regulation Energy. The Resource Specific Settlement Interval Ex Post Price shall apply to those resources that are capable of responding to CAISO Dispatch Instructions. Regulation Energy is excluded because Regulation resources are under the control of the CAISO=s Automatic Generation Control system and Dispatch Instructions issued to them are not issued in merit order nor explicitly recorded.

85. The newly defined term AZonal Settlement Interval Ex Post Price@ is the price within a Settlement Interval in each Zone equal to the absolute value Energy weighted average of the Dispatch Interval Ex Post Prices in each Zone, where the weights are the system total Instructed Imbalance Energy, except Regulation Energy, for the Dispatch Interval. This price will be used to settle Imbalance Energy from non-participating Load and Uninstructed Imbalance Energy from participating resources.

2. Settlement of Imbalance Energy

86. Imbalance Energy is real-time Energy deviation from Scheduled Energy. This occurs when there are differences between scheduled and actual Generation and Demand. Positive Imbalance Energy is Energy that is produced in excess of Scheduled Energy or Scheduled Energy that is not consumed. Negative Imbalance Energy is Scheduled Energy that is not produced or Energy that is consumed in excess of Scheduled Energy. Imbalance Energy is measured, calculated, and settled in each Settlement Interval for

each resource separately. Imbalance Energy is composed of Instructed Imbalance Energy, Uninstructed Imbalance Energy, and Unaccounted For Energy.

a. Settlement of Uninstructed Imbalance Energy

87. Uninstructed Imbalance Energy is Imbalance Energy due to non-compliance with a Dispatch Instruction. A negative settlement amount denotes a payment (due to the SC) and a positive settlement amount is a charge (due to the CAISO). An Uninstructed Energy Imbalance within a Settlement Interval shall be settled (paid or charged) in two tiers. Tier 1 represents under-performance to the Dispatch Instruction, and Tier 2 represents deviation outside the Dispatch Instruction, either above the instructed amount, or below the resource=s Final Hour-Ahead Schedule. Tier 1 Energy is settled at the Resource-Specific Settlement Interval Ex Post Price. Tier 2 Energy is settled at the Zonal Settlement Interval Ex Post Price.

b. Settlement of Instructed Imbalance Energy

88. Instructed Imbalance Energy is produced or consumed as the result of responding to Dispatch Instructions. The Instructed Energy Imbalance within a Settlement Interval will be settled (paid or charged) at the relevant Resource Specific Settlement Interval Ex Post Price.

c. Settlement of Ramping Energy

89. Ramping Energy is the Energy produced when a generator moves from one operating level to another. Ramping Energy Deviation is Energy produced or consumed due to hourly schedule changes in excess of Standard Ramping Energy and shall be paid or charged, at a Resource-Specific Settlement Interval Ex Post Price. For SCs scheduling a MSS that has elected to follow its Load, this Ramping Energy Deviation will account for the units following Load. Ramping Energy Deviation will be settled as an explicit component of Instructed Imbalance Energy for each resource.

3. Assured Recovery of Bid-Costs for Extra-Marginal Energy

90. Extra-marginal Energy occurs when: (1) the CAISO has Dispatched a Generating Unit=s Supplemental Energy bid in one hour and moved the Generating Unit to an operating point where it cannot return to its next hour=s Schedule by the beginning of the next operating hour, or (2) due to physical constraints, an inflexible Generating Unit must remain operating at a level at which it previously was Dispatched even though the CAISO no longer needs the Generating Unit at this level. These units are operationally constrained and are not eligible to set the MCP.

91. The CAISO proposes to provide bid cost recovery for this extra-marginal Energy even though such a bid price is not eligible to set the MCP. CAISO proposes a netting and settlement process which will be applied to both flexible and constrained output resources. Under the proposed settlement process, extra-marginal Energy is ensured recovery of its bid costs during the Trade Day. Each resource=s market revenue surplus (i.e., payments in excess of bid costs) or deficiency (i.e., un-recovered bid costs) is determined as the difference between expected revenues earned in the Settlement Interval at the relevant Resource Specific Settlement Interval Ex Post Price and the resource=s bid cost. The deficiency or Aun-recovered bid cost payment@ is then netted against the market revenues earned through participation in the Real Time Markets during the Trade Day. If there is a remaining deficiency, it is then evenly divided among all relevant settlement Intervals for the Trade Day. The CAISO will provide an uplift payment to the resource for each Settlement Interval in which the resource performed within a Tolerance Band around its Dispatch Operating Point, thereby ensuring bid cost recovery. Thus, generators would be paid at least their bid price for extra-marginal energy they produce when dispatched. However, costs owed to a generator for extra-marginal energy in each 10-minute settlement period would be netted against the generator's market revenues over a 24-hour period.

Comments

92. Duke argues that the proposed netting and settlement process compromises a generator's compensation for recovery of its fixed costs because such recovery is net of its expected market revenues during the trade day. Duke requests that at a minimum the Commission should prevent CAISO from instituting a netting process until a capacity market is developed in California.

93. In its Answer, the CAISO responds to Duke by stating that a de facto capacity market exists in California as a result of the extensive and expensive long-term power contracts entered into during the 2000-2001 energy crisis, the RMR contracts and the CAISO's unique Ancillary Services markets.

Commission Decision

94. While we do not agree with the CAISO that a de facto capacity market now exists, it is important to note that California is currently addressing its resource adequacy requirements through a proceeding before the CPUC which is in keeping with the approach set forth in the Commission's White Paper.[14] We will reject Duke's protest

[14] See Federal Energy Regulatory Commission White Paper on Wholesale Power Market Platform (Issued April 28, 2003), p. 5.

with the understanding that we will revisit this question as necessary when the State has concluded its resource adequacy proceeding. In the interim, we find that this proposal balances the need to meet load and adequately compensate flexible and constrained resources and will approve it.

4. Allocation of Above Market Clearing Price Costs

95. Above MCP costs incurred by the CAISO as a result of Instructed Imbalance Energy and Dispatch for reasons other than for a transmission facility outage or a location specific requirement shall be charged to SCs through a two-step process. In the first step, each SC is charged the lesser of: (1) the pro-rata share of above MCP costs based upon the ratio of each SC=s Net Negative Uninstructed Deviations to the total System Net Negative Uninstructed Deviations, or (2) the amount obtained by multiplying the SC=s Net Negative Uninstructed Deviation for each Dispatch Interval and a weighted average price. The weighted average price is equal to the total above MCP costs divided by the MWh delivered as a result of CAISO Dispatch Instructions with a cost component above the MCP. This provision was approved by the Commission in its AOrder Accepting in Part and Rejecting in Part Tariff Amendment No. 42 and Dismissing Complaint.@ [15] The second step requires that the CAISO allocate any remaining above MCP costs on a pro rata basis to all SCs in that Dispatch Interval based upon their Metered Demand plus exports.

96. In the July 17, 2002, Order[16] the Commission approved an exemption from this cost allocation for SCs with sufficient incremental Energy bids from physically available resources in the Imbalance Energy Market to cover their respective Uninstructed Deviation in a given Dispatch Interval if the prices of such Energy bids do not exceed the soft cap.

Comments

97. SWP and Metropolitan protest the CAISO's proposal to allocate the costs associated with above-market clearing price transactions to all SCs pro rata based upon Metered Load plus exports. SWP disputes the CAISO's statement that an economic dispatch scheme that provides bid cost recovery benefits the entire market. SWP proposes instead that the costs should be allocated based on a customer's contribution to peak demand to reflect cost causation principles. Reliant maintains that costs associated with extra-marginal energy should not be charged to exports, asserting that exports are not benefited by the adjustments made by the CAISO to serve control area load and

[15] 98 FERC & 61,327 (2002).

[16] 100 FERC & 61,060 (2002).

should not be made to cover the cost of energy used for this purpose.

98. The CAISO answers that the Commission approved a similar allocation of above-market Energy bid costs, through Charge Type (CT) 487, in an order concerning Amendment No. 42 to the CAISO Tariff[17] and that the Commission agreed that this allocation proposal was fully in accordance with cost-causation principles.

Commission Decision

99. We will accept the CAISO's proposal to allocate the costs for bid cost recovery for Extra-Marginal energy to all SCs on a pro-rata basis. This allocation will be based on metered load plus exports. As the CAISO points out, the Commission has already approved a similar pro-rata allocation in its Order concerning Amendment No. 42 to the CAISO Tariff. The language approved in Amendment 42 pertained to the allocation of above MCP costs incurred by the CAISO as a result of Instructed Imbalance Energy and Dispatch Instructions. The Imbalance Energy bid costs are settled in each Settlement Interval. The distinction in this proposal is the CAISO wants to exclude the calculation of the extra-marginal energy bid costs from the calculation of above MCP costs in the Imbalance Energy markets. The CAISO states the bid cost recovery costs incurred are a function of revenues and surpluses over a 24-hour period and thus cannot be attributed to a specific deviation in a given Settlement Interval. The CAISO also states that this allocation is appropriate because an economic dispatch scheme that provides bid cost recovery benefits the entire market.

J. Minimum Load Cost Compensation (MLCC)

1. Settlement of MLCC

100. MLCC is currently provided by the CAISO for costs incurred by a Generator running at minimum operating level (Pmin) in compliance with the Must Offer Obligation. Currently, Must Offer Generators are not eligible to recover MLCC during Self-Commitment[18] or Waiver periods, or when generating outside of the Tolerance Band on an hourly basis.

101. In the instant filing, the CAISO proposes to change the time period for

[17] 98 FERC ¶ 61,327 (2002).

[18] Self-Commitment Periods have been defined by CAISO as the hours when Must-Offer Generators submit Energy Schedules or are awarded Ancillary Service bids or self-provision schedules. See San Diego Gas & Electric Company, et al, 101 FERC ¶ 61,112 at fn 6.

determination of Minimum Load Costs from an hourly basis to a 10-minute Settlement Interval[19] basis within a Waiver Denial Period. Minimum Load Energy would be accounted for as Instructed Imbalance Energy. To the extent the Instructed Imbalance Energy payments would not be sufficient to cover the generator's Minimum Load Cost, the generator would also receive an uplift payment for the relevant eligible Settlement Intervals in which the unit runs during a Waiver Denial Period. If a Generator is dispatched for Real-time imbalance Energy above its minimum load during the Waiver Denial Period, the Generator would be eligible for Bid Cost Recovery subject to performance within its relevant Tolerance Band.

Comments

102. California Generators believe that deviations outside of the Tolerance Band should continue to be measured over the hour, instead of the proposed 10-minute interval. California Generators further argue that the CAISO should not propose a different performance requirement until the MLCC is replaced with a more permanent method to pay for availability of energy, i.e., during implementation of Phase 2 of MD02.

103. In its Answer, the CAISO responds that it is more equitable to assess compliance and revoke minimum load cost compensation on a ten-minute basis since hourly compliance assessment does not provide sufficient incentive for a unit to operate at its instructed point at any given moment through that hour. The CAISO further states that there is too much leeway for a unit to first deviate within an interval and then to deviate in the opposite direction in later intervals to make up for the previous deviation. The CAISO adds that assessing performance and, if necessary, revoking payment on a ten-minute basis synchronizes the CAISO's settlement systems with its compliance systems and reduces the size of any necessary adjustments for non-compliance.

Commission Decision

104. We agree that it is reasonable to assess compliance on a ten-minute basis as a means to reduce deviations within the hour, to synchronize the settlement system with the compliance system, and to reduce the size of adjustments for non-compliance. However, we expect the CAISO's Department of Market Analysis to monitor this approach. Should it not have the intended consequence, resulting in units' inability to reasonably comply, the CAISO should work with market participants to revise its approach.

[19] Settlement Interval is a proposed CAISO Tariff term defined as that time period equal to or a multiple of the Dispatch Interval, over which the CAISO settles deviations in Generation and Demand from Final Hour Ahead Schedules. (CAISO transmittal letter, p. 25)

2. Revocation of MLCC

105. The CAISO proposes to monitor a resource's energy production on a Settlement Interval basis, and revoke: (1) MLCC during a Waiver Denial Period when Energy production in a Settlement Interval varies by more than the Tolerance Band; or (2) MLCC and bid cost recovery in a Settlement Interval when Energy within that interval varies from the total expected output by more than the Tolerance Band.

Comments

106. California Generators assert that the CAISO has not shown that its proposal for otherwise eligible Must-Offer generators to lose the MLCC payment for failing to provide energy within the Tolerance Band over a 10-minute interval is consistent with prior Commission orders. California Generators further argue that the Tolerance Band should only apply when a unit is operating at Pmin, since a unit operating above Pmin has satisfied the must-offer requirement and MLCC should not be withheld.

Commission Decision

107. We reject the CAISO's proposal not to compensate a Must-Offer Generator for either minimum load costs or bid costs for energy dispatched above minimum load when it generates outside of the Tolerance Band within a Settlement Interval. We find that the proposed language revoking payment for minimum load costs contravenes our directive that the CAISO must compensate a generator under the Must-Offer Obligation for that generator's minimum load costs.[20] We further find the CAISO's proposed Tariff language which would deny bid cost recovery to a must-offer generator whose energy output varies from its expected output by more than the Tolerance Band to be unacceptable. This language is inconsistent with the proposal for Uninstructed Deviation Penalties which are assessed only against energy generated outside of the Tolerance Band.

3. Minimum Load Costs Allocated to Metered Sub-Systems

108. The CAISO has added language to its Tariff to clarify that Metered Sub-Systems (MSS) may also elect to recover minimum load costs. In addition, the CAISO proposes to clarify that MSS that elect to follow their own Load are not eligible for bid cost recovery and are allocated bid cost recovery charges on a net Demand basis, while MSS that do not follow their load are eligible for bid cost recovery and are assessed bid cost recovery charges on a gross Demand basis.

[20] 102 FERC ¶ 61,285

Comments

109. Santa Clara and NCPA argue that the CAISO's proposal to allocate Minimum Load Costs to MSS Operators would unilaterally impose enormous payment obligations, should be rejected on the grounds that it is not based on concepts of cost causation, and is inconsistent with NCPA's Metered Sub-system Aggregator (MSSA) Agreement.[21]

110. In its Answer the CAISO responds that the Commission's December 19 Order directed the CAISO to pay Minimum Load Costs and required those costs to be allocated in a manner consistent with the methodology utilized for the recovery of emissions and start-up fuel costs. In the same Order, the Commission confirmed that the use of gross load as the basis for assessment of emissions and start-up fuel costs is appropriate in that all uses of the transmission grid will be assigned these costs consistent with the CAISO's markets performing a reliability function. The CAISO asserts that to the extent an MSS Operator purchases Energy from the CAISO, the MSS Operator should pay for that Energy on the same basis as all other Scheduling Coordinators. Regarding the allegation that the proposed Minimum Load Cost allocation is inconsistent with the MSSA Agreement, the CAISO claims that when the MSSA Agreement was initially executed in July, 2002, it had not been determined whether MSS Operators should be exempted from Minimum Load Costs and so the issue was not addressed in the initial MSSA Agreement. The CAISO states, however, that absent being specifically addressed in the MSSA Agreement, the CAISO tariff provisions would govern.

Commission Decision

111. In its acceptance of the CAISO's Amendment 46[22], the Commission found NCPA and Santa Clara to be vertically integrated municipal utilities which have the ability to self-supply and follow load from generation internal to their MSS Operator area

[21] The MSSA establishes the relationship between NCPA, its member Cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto and Ukiah, and the Plumas-Sierra Rural Electric Cooperative, and the CAISO. NCPA also acts as Scheduling Coordinator, under the MSSA, for its member Cities of Roseville and Santa Clara (Silicon Valley Power), who have separate MSS Agreements with the CAISO.

[22] In Amendment 46, CAISO proposed: (1) modifications to its Tariff; (2) an MSSA Agreement between itself and NCPA, and (3) MSS Agreements between itself and several MSS including City of Santa Clara, California (Santa Clara). These agreements are designed to allow governmental, non-governmental, and non-participating transmission owning entities to participate in the CAISO markets. See California Independent System Operator Corporation, 100 FERC ¶ 61,234 at p. 61,835

and generation from bilateral contracts. In addition, these municipal utilities can be metered off of the CAISO grid. Sections 3.5 of the Santa Clara MSS Agreement and the NCPA MSSA Agreement state that nothing in the Agreement shall affect in any way the authority of the CAISO to unilaterally modify the CAISO Tariff in accordance with the CAISO Tariff procedures for regulatory filings, or of the CAISO and NCPA to exercise their rights to pursue legal remedies. Section 3.5 further states that when amending its Tariff, the CAISO will consider the impact on Metered Sub-Systems and the principles reached in the MSS and MSSA Agreements, including cost causation, load following capability and compatibility of market participants.

112. In Amendment 46, the Commission found reasonable the proposal to allow the MSS Operator to choose whether to be charged by the CAISO on a gross load basis or net load basis for start-up and emission charges. Further, if the MSS Operator elects not to charge the CAISO the start-up and emission costs of the MSS Operator's generating units, then the MSS Operator will be responsible for the CAISO's start-up and emission charges allocated on net metered demand. Alternatively, if the MSS Operator elects to invoice the CAISO on the basis that the MSS Operator is not responsible for these costs, then the MSS Operator will be allocated and charged these costs based upon gross load.

113. In the instant filing, the CAISO would allocate Minimum Load Costs to MSS Operators on the same basis that they are currently allocated start-up and emission charges. Therefore, the proposed tariff modification is consistent with the December 19 Order directing the CAISO to allocate MLCC on the same basis as start-up and emission costs. In addition, the proposed modification is also consistent with the MSS and MSSA Agreements in providing the municipal utilities the opportunity to annually choose whether or not they will bill the CAISO for Minimum Load Costs. Therefore, we find the tariff modification to allocate Minimum Load Costs to MSS Operators acceptable .

K. System Resources

114. Under the CAISO's proposal, System Resources would not be allowed to set the Market Clearing Price (MCP). However, the CAISO has proposed to settle System Resources so that they are ensured bid cost recovery within the Settlement Period. The CAISO is proposing an uplift charge for the difference between the MCP and the resource bid. Therefore, the supplier would be paid the higher of its bid or the MCP average for the settlement period. This would apply to System Resources that are dispatched and deliver hourly-predispatched Instructed Imbalance Energy. The CAISO proposes to calculate the hourly uplift payment by: (1) Determining market deficits or surpluses as the difference between the resource-specific price and the resource's (hourly) bid cost; (2) Determining an hourly uplift payment for any amount less than zero; and (3) Dividing this hourly amount evenly by the relevant number of Settlement Intervals and paying this portion for each Settlement Interval of the hour.

115. System Resources would continue to be allowed to bid amounts other than $0/MWh and remain price takers. Because they would not be eligible to set the MCP, System Resources would not be subject to the Automated Mitigation Procedure (AMP). Importers that are power marketers would also be exempt from the AMP.

Comments

116. California Generators believe that the CAISO cannot discriminate between System Resources and PGA generators, and the CAISO should either allow System Resources to set the MCP or allow PGA Generators to participate in an hourly pre-dispatch market and receive bid cost recovery.

117. Duke also claims that in-state generation should be allowed to participate in the CAISO's hourly pre-dispatch process on the same terms as System Resources. Duke asserts that the disparate treatment of PGA Generators and System Resources is discriminatory. Duke argues that because PGA Generators are subject to the Must-Offer requirement, they will be exposed to continuous redispatch over a wide spectrum of operating points. Duke complains that the redispatch capability imposes tremendous mechanical stresses on generators, decreasing their lifespan and increasing the risk of forced outages. Duke requests that the CAISO be directed to modify its Tariff to allow PGA Generators the option of submitting bids to be pre-dispatched in the same manner as System Resources.

118. The CAISO explains in its Answer that System Resources are treated differently in recognition of the specific circumstances that result from being outside the CAISO Control Area. The CAISO asserts that allowing the vast majority of Generating Units to participate as pre-dispatched units would completely undermine the purpose of the real time Imbalance Energy market. This would leave the CAISO with few resources to be able to match supply and Demand in real time as required.

119. California Generators assert that by giving System Resources bid cost recovery, the CAISO will be able to manipulate the market. Specifically, the CAISO will be allowed to artificially suppress the in-state MCP by over procuring System Resources and then under-procuring in-state PGA Resources. According to the California Generators, the CAISO could lower the total cost of real-time Energy by incurring some pay-as-bid uplift in return for a lower overall MCP. The California Generators further argue that the Commission has not ordered the CAISO to pay System Resources as-bid.

120. In its Answer, the CAISO asserts that the Commission has accepted the CAISO's proposal to pay System Resources as-bid. The CAISO states that it proposed to pay System Resources as-bid in Section 8.6.3 of the Dispatch Protocol submitted in its May 1, 2002, MD02 filing as part of its proposal to implement real-time economic dispatch.

The CAISO explains that because the July 17, 2002, order approved the CAISO's proposal to use real-time economic dispatch, it implicitly approved Section 8.6.3 of the Dispatch Protocol even though the Commission did not expressly state that it was accepting Section 8.6.3.

121. The CPUC requests that the Commission require the CAISO to track uplift charges if the CAISO is allowed to pay System Resources their bid cost. In its Answer, the CAISO has agreed to separately track these uplift charges by creating two new charge types for that purpose. One charge type will track all uplift payments made to resources and the other will track how those uplifts are recovered from market participants.

Commission Decision

122. We will accept the CAISO's proposal to treat System Resources differently from in-state generation regarding participation in the CAISO's Hourly Pre-Dispatch process. The CAISO has adequately explained why it needs to treat System Resources differently from generators that are subject to PGAs regarding the pre-dispatch process. We will reject Duke and the California Generators arguments that the CAISO is proposing discriminatory treatment of Generators that are subject to PGAs and System Resources.

123. The Commission will accept the CAISO's proposal to pay imports the higher of their bid or the MCP. While we are concerned with the possibility that this proposal could be an incentive for megawatt laundering and increase the possibility of gaming, we believe that the CAISO is well-equipped to monitor for this type of behavior. Furthermore, we find that the benefits of increased incentives for imports to bid into California markets outweigh the possible risks.

L. Tariff Inconsistencies

124. Intervenors point out numerous inconsistencies between terms in the Tariff and the CAISO's Operating Protocols. Numerous references also remain to outdated market features such as the California PX. Inconsistencies and interchangeable terms can cause confusion as to the proper implementation of Tariff protocols. This may also lead to the improper implementation of Tariff procedures and operation protocols by market participants.

125. The CAISO in its reply states that it recognizes the importance of using terms in a consistent manner throughout its Tariff and has developed the set Defined Terms in Appendix A to achieve this objective. The CAISO has committed itself to correcting any inconsistent use of terms in its compliance filing.

Commission Decision

126. The Commission agrees with both Intervenors and the CAISO that it is imperative that the Tariff and Operating Protocols be consistent and up to date. Therefore we direct the CAISO to file, within 90 days of this order, a compliance filing on Amendment No. 54 to correct any inconsistencies and invalid references in both its Tariff and Operating Protocols

M. Mirant TRO

127. On September 12, 2003, the Bankruptcy Court for the Northern District of Texas issued a "Temporary Restraining Order Against the Federal Energy Regulatory Commission" ("TRO") in *In re Mirant Corp. (Mirant Corp. v. FERC),* Adversary Proceeding No. 03-4355, which enjoins the Commission "from taking any action, directly or indirectly, to require or coerce the [Mirant] Debtors to abide by the terms of any Wholesale Contract [to which a Mirant Debtor is a party] which Debtors are substantially performing or which Debtors are not performing pursuant to an order of the Court unless FERC shall have provided the Debtors with ten (10) days' written notice setting forth in detail the action which FERC seeks to take with respect to any Wholesale Contract which is the subject of this paragraph."

128. Should the TRO be converted into a preliminary injunction, an action that the Commission opposes, the Commission will appeal that order. Despite the Commission's disagreement with the validity of the TRO and its expectation that the TRO (or a preliminary injunction) will be vacated on appeal, the Commission must comply with it until vacated. The TRO requires ten days' written notice before the Commission takes a proscribed action with respect to a covered Mirant Wholesale Contract. Accordingly, to the extent that this Order requires Mirant to act in a manner proscribed by the TRO, the Order will provide written notice to Mirant of the action that FERC will take with respect to a covered Mirant Wholesale Contract, which action will not become effective until ten (10) days after issuance of this Order. In all other respects, this Order is effective immediately.

The Commission orders:

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

(B) The CAISO's proposed tariff changes, as modified in Ordering Paragraph (A), are hereby accepted for filing, without suspension or hearing, to become effective ten days after the CAISO provides notice to the Commission and Market Participants that the software necessary to implement these tariff changes is ready for implementation.

By the Commission.

(S E A L)

Linda Mitry,
Acting Secretary.

Appendix A

Motions to Intervene, Protests, and/or Comments

Automated Power Exchange, Inc. (AEP)
California Department of Water Resources State Water Project (SWP)
California Electricity Oversight Board (EOB)
Cities of Redding and Santa Clara, California, and the M-S-R Public Power Agency (Cities/MSR)
Cogeneration Association of California (Cogen)
Duke Energy North America, LLC and Duke Energy Trading and Marketing, L.L.C. (Duke)
Dynegy Power Marketing, Inc., El Segundo Power LLC, Long Beach Generation LLC, Cabrillo Power I LLC, Cabrillo Power II LLC, Williams Energy Marketing & Trading Company, the Western Power Trading Forum, and Independent Energy Producers of California (California Generators)
FPL Energy, LLC (FPL)
Metropolitan Water District of Southern California (Metropolitan)
Modesto Irrigation District (Modesto)
Northern California Power Agency (NCPA)
Pacific Gas and Electric Company (PG&E)
Powerex Corp. (Powerex)
Public Utilities Commission of the State of California (CPUC)
Reliant and Mirant Companies (Reliant and Mirant)
Sacramento Municipal Utility District (SMUD)
Southern California Edison Company (SCE)
The Transmission Agency of Northern CA (TANC)
Tucson Electric Power Company (Tucson)
Turlock Irrigation District (Turlock)
Western Power Trading Forum (WPTF)