

126 FERC ¶ 61,165  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Acting Chairman;  
Sudeen G. Kelly, Marc Spitzer,  
and Philip D. Moeller.

California Independent System Operator Corporation      Docket Nos. ER08-73-001  
ER08-73-002

ORDER DENYING REHEARING, PROVIDING FURTHER GUIDANCE,  
GRANTING ADDITIONAL TIME FOR COMPLIANCE, AND ACCEPTING IN PART  
AND REJECTING IN PART COMPLIANCE FILING

(Issued February 24, 2009)

1. On July 21, 2008, the California Independent System Operator Corporation (CAISO) filed a request for clarification, or in the alternative, rehearing<sup>1</sup> of an order issued on June 20, 2008, in which the Commission conditionally accepted a mechanism to mitigate the market power potential of registered cost option start-up and minimum load bids under its Market Redesign and Technology Upgrade (MRTU) Tariff.<sup>2</sup> Concurrent with its Clarification or Rehearing Request, the CAISO submitted a compliance filing stating that it was not able to fully comply with the Commission's directives in the June 2008 Order.<sup>3</sup>
2. In this order, we deny the CAISO's request for clarification or rehearing of the June 2008 Order, and provide further guidance on the Commission's directive that the CAISO must calculate registered cost option bid caps using a more localized California or western reference point. In addition, we accept in part and reject in part the July 2008

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<sup>1</sup> CAISO July 21, 2008 Request for Rehearing or Clarification, Docket No. ER08-73-001 (Clarification or Rehearing Request).

<sup>2</sup> *Cal. Indep. Sys. Operator Corp.*, 123 FERC ¶ 61, 288 (2008) (June 2008 Order).

<sup>3</sup> CAISO July 21, 2008 Compliance Filing, Docket No. ER08-73-002 (July 2008 Compliance Filing).

Compliance Filing, and grant the CAISO 30 days from the issuance of this order to re-submit registered cost option mitigation measures.

## **I. Start-up and Minimum Load Costs under MRTU**

3. Under MRTU, resources are permitted recovery of their start-up and minimum load costs. The MRTU Tariff provides that a resource may semi-annually select one of two options to specify its start-up and minimum load cost recovery for the day-ahead and real-time energy markets.<sup>4</sup> The proxy cost option is a cost-based recovery option that includes a fuel cost component that is updated on a daily basis to account for changes in the cost of gas in the daily spot market.<sup>5</sup> The registered cost option is a market-based recovery option under which a resource submits start-up and minimum load bids that need not be related to actual costs and must not be changed for a subsequent six-month period.<sup>6</sup>

## **II. October 2007 Filing**

4. On October 19, 2007, the CAISO filed to amend the MRTU Tariff to authorize mitigation of the exercise of market power that would occur when suppliers submit extremely high start-up and minimum load bids.<sup>7</sup> In its filing, the CAISO proposed to calculate bid caps for start-up and minimum load bids under the registered cost option through use of a projected proxy cost. The projected proxy cost would be calculated whenever a Scheduling Coordinator selects the registered cost option, and would remain in effect for six months, unless the resource elected to switch to the proxy cost option.<sup>8</sup>

5. The CAISO originally proposed to base natural gas prices used in calculating bid caps for gas-fired units on the highest average monthly price of monthly forward gas

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<sup>4</sup> See MRTU Tariff section 30.2.

<sup>5</sup> See *id.* section 30.4.

<sup>6</sup> See *id.*

<sup>7</sup> See June 2008 Order, 123 FERC ¶ 61, 288 at P 4-7 (discussing CAISO's proposed new section 39.6.1.6 of the MRTU Tariff, which the Commission conditionally accepted in the June 2008 Order).

<sup>8</sup> *Id.* P 8-13. Projected proxy cost is a calculation of a resource's start-up and minimum load costs for a prospective six-month period that is used to determine maximum registered cost values (bid caps) for the resource. The projected proxy cost would be based on a resource's operating parameters and stored in the CAISO's Master File. See MRTU Tariff, Appendix A, Master Definitions Supplement.

contracts at Henry Hub<sup>9</sup> for the six-month period during which the registered cost option is in effect.<sup>10</sup> These prices would be applied to the fuel consumption parameters used for calculating a resource's proxy cost, as set forth in the CAISO's Business Practice Manuals.<sup>11</sup> The derived bid cap for a resource, based on the projected proxy cost, would then remain at that level for the next six months, unless the resource elected to switch to the proxy cost option.<sup>12</sup> For non-gas fired units, the CAISO states that projected start-up and minimum load costs would be calculated using the information contained in the Master File for those units.<sup>13</sup>

6. Finally, under the CAISO's proposal, if daily spot market gas prices increase to the point where a unit's start-up or minimum load costs (calculated based on daily spot market gas prices) exceed that unit's bid as submitted under the registered cost option, that unit could switch to the proxy cost option. However, once a unit has switched, that unit would be required to remain under the proxy cost option for the balance of the six-month period.

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<sup>9</sup> Natural gas is priced and traded at more than 30 major market hubs in the U.S., the principle of which is known as the Henry Hub, located in Louisiana. The price at which natural gas trades differs across these major hubs, due to variations in supply and demand for natural gas at a particular location. *See generally* Natural Gas Supply Association, Natural Gas Marketing, <http://www.naturalgas.org/naturalgas/marketing.asp>.

<sup>10</sup> Henry Hub is the pricing point for natural gas futures contracts traded on the New York Mercantile Exchange (NYMEX). *See* MRTU Tariff, Appendix A, Master Definitions Supplement. Henry Hub is located in Louisiana, near the Texas border.

<sup>11</sup> All of the CAISO Business Practice Manuals are available at <http://www.caiso.com/17ba/17baa8bc1ce20.html>.

<sup>12</sup> As an example, the CAISO states that in order to calculate bid caps applicable for units starting the registered cost option in February 2008, the average prices for monthly NYMEX gas contracts at Henry Hub for the months February through July 2008 would first be calculated. The maximum of these six monthly average prices would be the gas price used in calculating the cap applicable for each unit starting the registered cost option in February 2008. The cap for these units would then remain fixed at that level for the six-month period from February through July 2008. The bid caps for any units submitting bids in subsequent months would be calculated in the same manner.

<sup>13</sup> The CAISO Master File is a file containing information regarding Generating Units, Loads and other resources. *See* MRTU Tariff, Appendix A, Master Definitions Supplement.

### III. June 2008 Order

7. In the June 2008 Order, the Commission accepted the CAISO's proposal to limit start-up and minimum load bids under the registered cost option to 200 percent of a unit's projected costs for units in local capacity areas, where the potential for exercise of market power is greatest, and 400 percent of a unit's projected costs for units outside of these areas.<sup>14</sup> In addition, the Commission accepted the CAISO's proposal to develop the projected proxy cost using the highest average monthly price for monthly gas contracts over a forward-looking six-month period at the time the bid is submitted.<sup>15</sup>

8. The Commission found, however, that natural gas futures contracts with the delivery point at Henry Hub, located in Louisiana, are not sufficiently representative of natural gas prices for California or western natural gas delivery points, and, therefore are inappropriate for use as part of a registered cost option mitigation methodology.<sup>16</sup> The Commission determined that any market price information used in calculating a bid cap via a projected proxy cost should use a more localized California reference point as a benchmark for setting a just and reasonable cap in the CAISO market.<sup>17</sup> Accordingly, the Commission directed the CAISO to submit a compliance filing within 30 days of the date of issuance of the June 2008 Order, modifying its proposal to incorporate a more geographically appropriate reference point in deriving a projected proxy for natural gas prices under the registered cost option.<sup>18</sup>

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<sup>14</sup> June 2008 Order, 123 FERC ¶ 61, 288 at P 23.

<sup>15</sup> *Id.* P 37.

<sup>16</sup> *Id.*

<sup>17</sup> *Id.* P 37 and n.29 (citing *Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities*, Order No. 697, 72 Fed. Reg. 39,904, at P 542 (July 20, 2007), FERC Stats. & Regs. ¶ 31,252, *clarified*, 121 FERC ¶ 61,260 (2007), *order on reh 'g*, Order No. 697-A, 73 Fed. Reg. 25,832 (May 7, 2008), FERC Stats. & Regs. ¶ 31,268 (2008) (finding that "an index is acceptable benchmark evidence and mitigates affiliate abuse concerns so long as that benchmark price or index reflects the market price where the affiliate transaction occurs (i.e., is a relevant index)"), *order on reh'g and clarification*, 124 FERC ¶ 61,066 (2008); *Price Discovery in Natural Gas and Electricity Markets*, 109 FERC ¶ 61,184, at P 63 (2004) (recognizing differences between Eastern and Western electricity markets in adopting minimum criteria for use of an index point in a jurisdictional tariff)).

<sup>18</sup> *Id.* P 37.

9. In addition, the Commission directed the CAISO to revise its MRTU Tariff definition of projected proxy cost to include a more technically complete description and a more transparent methodology.<sup>19</sup> Finally, the Commission directed the CAISO to revise the proxy cost option provision under section 30.4 of the MRTU Tariff to clarify that start-up costs will include auxiliary electrical energy costs, and minimum load costs will include operation and maintenance costs incurred by generators.<sup>20</sup>

#### **IV. July 2008 Compliance Filing**

10. In the July 2008 Compliance Filing, the CAISO states that it did not revise its original proposal to use natural gas futures contracts with the delivery point at Henry Hub.<sup>21</sup> The CAISO claims that to the best of its knowledge there are no publicly available gas futures prices for California delivery points. The CAISO also states that it added more detail to the MRTU Tariff to specify how it would determine the price of gas used in calculating the projected proxy cost, pursuant to the Commission's directive that the CAISO further clarify the projected proxy cost and its application.<sup>22</sup> Finally, the CAISO states that the provision for start-up and minimum load costs in section 30.4 of the MRTU Tariff has been clarified to include an auxiliary power component and an operations and maintenance cost component, respectively, as directed by the Commission.<sup>23</sup>

#### **V. July 2008 Request for Clarification or Rehearing**

11. The CAISO requests clarification of the Commission's requirement to use a benchmark reference point that is more representative of California or western-area prices in calculating the projected proxy cost. Specifically, the CAISO requests clarification that use of monthly gas contracts at Henry Hub in the fuel cost component of its projected proxy cost methodology is acceptable.

12. In support of its request for clarification, the CAISO argues that there is no publicly available index for gas futures contracts with delivery points in California. The CAISO further contends that, based on its preliminary analysis, alternative methodologies for approximating such an index would be unreliable, lack transparency, and not justify

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<sup>19</sup> *Id.* P 38.

<sup>20</sup> *Id.* P 28; *see also* MRTU Tariff section 39.7.

<sup>21</sup> CAISO July 28, 2008 Transmittal Letter, Docket No. ER08-73-002, at 2-3.

<sup>22</sup> *Id.* at 3.

<sup>23</sup> *Id.*

the additional time required to perform the calculations in light of the nominal differences in gas prices between Henry Hub and California locations. In the alternative, if the Commission declines to grant this requested clarification, the CAISO requests rehearing.

13. The CAISO claims that it has explored the possibility of alternatives for complying with the Commission's directive to use a more localized reference point, while still basing the cost of gas on Henry Hub futures prices. The CAISO states that one such possibility would be to modify the start-up and minimum load bid cap methodology to incorporate daily prices for basis swaps. The CAISO explains that basis swaps represent the differential between prices for monthly contracts at Henry Hub compared to final settlement prices for month-ahead gas contracts at various delivery points in California. The CAISO states that data on a variety of basis swaps is available through two markets: New York Mercantile Exchange (NYMEX) and IntercontinentalExchange (ICE). The CAISO adds that, if accessible, prices for these basis swaps could be combined with Henry Hub futures prices to project representative gas prices for delivery points in California on a forward-looking six-month basis. The CAISO contends, however, that its preliminary analysis of this approach reveals downsides, including increased time and expense in performing the basis swap calculations.

14. According to the CAISO, its analysis of spot market gas prices at Henry Hub and California delivery points reveals that use of prices at Henry Hub would yield spot price projections that are higher than actual gas costs at delivery points within California. Nonetheless, the CAISO claims that prices at Henry Hub are an extremely accurate indicator of the upper range of prices that could be expected in California. The CAISO adds that the only impact the average difference in gas prices at Henry Hub and California will likely have is that under the CAISO's proposal, the headroom made available to generators to guard against gas price spikes will increase relative to a method that also factors in prices for basis swaps. The CAISO concludes that, because there is a strong correlation between gas prices at Henry Hub and California delivery points, use of basis swap data in the start-up and minimum load calculations would provide little or no additional benefits to market participants.

15. The CAISO further states its concern that markets in which the various basis swap products are offered may not be sufficiently robust and liquid to yield prices reliable enough to be used in setting bid caps. Finally, the CAISO states that it is also concerned about the transparency of basis swap data for market participants. The CAISO points out that its original proposal advocated use of NYMEX futures contracts for Henry Hub because of the liquidity and transparency of this index, and the ease with which market participants could access gas prices on a forward-looking six month basis. According to the CAISO, while prices for NYMEX monthly gas futures on a forward-looking basis are publicly available, daily prices for basis swaps on a forward-looking six month basis are only available to participants in those markets or through proprietary data services. The

CAISO argues that this lack of transparency is contrary to the Commission's intended outcome in the June 2008 Order.

16. The CAISO states that if the Commission does not grant its request for clarification or rehearing, the CAISO requests guidance from the Commission and additional time to resolve implementation details such as the exact data to be used, and negotiating use of the data with the publisher, including the extent to which that data can be made as transparent as possible.

17. In sum, the CAISO asks the Commission to clarify that: (1) its directive to calculate start-up and minimum load caps using a more localized, California reference point was premised on the existence of a transparent gas futures index for California delivery points; and (2) given, as suggested by the CAISO, that such an index does not exist, that there is a strong correlation between Henry Hub and California spot market gas prices, and that there are disadvantages to approximating such an index using basis swap data, it is therefore appropriate to calculate bid caps using the highest price for monthly gas contracts at Henry Hub over a forward-looking six-month period, as initially proposed.

## **VI. Discussion**

18. For the reasons set forth in the June 2008 Order and as explained below, we deny the CAISO's request for clarification or rehearing, and direct the CAISO to submit within 30 days of issuance of this order a revised proposal for determining a geographically appropriate proxy cost of gas associated with the registered cost option for start-up and minimum load bids.

19. In its original October 2007 filing, the CAISO proposed to derive the fuel cost component of the projected proxy cost from NYMEX gas futures contract settlement prices at Henry Hub. In the June 2008 Order, the Commission found that this would be inappropriate since Henry Hub, located in Louisiana, is geographically removed from California and, therefore, settlement prices at Henry Hub are not sufficiently representative of natural gas prices in western area markets or California.<sup>24</sup>

20. On rehearing, the CAISO renews its request to base its projected proxy cost calculation on NYMEX Henry Hub futures. The CAISO argues that, to the best of its knowledge, there is no published index of natural gas futures contracts for delivery points in California for a forward-looking six-month period, and alternative methodologies for approximating such an index would be unreliable and lack transparency.

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<sup>24</sup> June 2008 Order, 123 FERC ¶ 61, 288 at P 37.

21. The Commission denies the CAISO's request to use gas price futures at Henry Hub to calculate projected proxy costs for the registered cost option. While the Commission recognizes that there is no physical futures product for western delivery points of natural gas equivalent to the Henry Hub NYMEX futures market, we find that it would be unjust and unreasonable to use higher costs for gas, based on prices at Henry Hub, in calculating these bid caps. We further find, as discussed more fully below, that the basis swap market is sufficiently liquid and transparent for this purpose. The California basis swap market is relied upon by the industry to hedge and to develop forecasts of natural gas prices.<sup>25</sup> NYMEX and ICE offer services to clear trades in these markets. Indeed, California market participants rely on basis swap data in a variety of contexts – from gas price projections, to calculating gas price components of market-related formulae – and are familiar with use of basis swaps, and thereby recognize the transparency and liquidity of these markets.<sup>26</sup>

**A. Use of Henry Hub**

22. Start-up and minimum load bid caps are intended to satisfy two objectives. First, they should be low enough to provide reasonable protection against the exercise of market power when markets are not fully competitive; second, they should be high enough to allow generators to recover their costs when price spikes occur in California gas spot markets.<sup>27</sup>

23. Under the CAISO's methodology, the fuel cost component of the projected proxy cost is not intended to be a precise quantification of gas prices on a forward-looking basis, but instead serves as a prospective benchmark approximation of California-area gas

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<sup>25</sup> See *infra* P 31-32 and accompanying footnotes.

<sup>26</sup> See *infra* P 31-32.

<sup>27</sup> This is consistent with other caps approved for MRTU. See, e.g., *Cal. Indep. Sys. Operator Corp.*, 126 FERC ¶ 61,082, at P 31, 33-34 (2009) (finding that any proposed price cap must balance the economic importance of minimizing the impact on competitive market clearing prices and the economic signals they provide with the goal of protecting market participants from extreme and unanticipated prices); see also *Cal. Indep. Sys. Operator Corp.*, 126 FERC ¶ 61,150, at P 85 (2009) (Docket No. ER08-1178) (imposing a temporary 120-day revenue cap on exceptional dispatches to protect customers during transition to MRTU and enable the CAISO to determine the full extent of network and software limitations).

costs.<sup>28</sup> The CAISO then multiplies this reference price by a factor of 200 or 400 percent, depending on whether or not the resource is located in a local capacity area. While the methodology is not intended to calculate a precise cost for gas, it is intended to cap resources participating in the California market. Therefore, as discussed in the June 2008 Order, the projected proxy cost should bear some relation to the cost of gas in California and/or the West.<sup>29</sup> Since we continue to find it reasonable to reflect California or western market prices in the CAISO's registered cost option bid cap, we maintain our directive that the CAISO incorporate a more geographically appropriate reference point for deriving a projected proxy for natural gas prices under the registered cost option, rather than rely on NYMEX futures prices at Henry Hub.

24. The CAISO argues that the differential between the higher gas prices at Henry Hub and the cost of gas at California delivery points would provide additional "headroom" for generators in the event of price spikes in California natural gas spot markets. The CAISO states that this additional headroom is well within the zone of being just and reasonable.<sup>30</sup>

25. The Commission disagrees, and reaffirms our determination that use of California-area gas costs, in conjunction with the 200/400 percent adder, provides a sufficient buffer for California generators seeking to recover their start-up and minimum load bid costs through the registered cost option.<sup>31</sup> Any additional "headroom" that might be gained by relying on gas prices at Henry Hub is unnecessary, and bears no direct relation to gas prices for energy sold in the MRTU markets. We further note that, in the event a resource becomes concerned that the capped registered cost option is preventing its recovery of actual start-up and minimum load costs, it has the option to switch to the proxy cost option.

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<sup>28</sup> We note that the calculation of registered cost option bid caps utilizes a resource's start-up and minimum load operating parameters in the same manner as the proxy cost option, but substitutes the derived gas price to determine a resource's bid cap limitations.

<sup>29</sup> June 2008 Order, 123 FERC ¶ 61, 288 at P 37.

<sup>30</sup> See CAISO July 21, 2008 Clarification or Rehearing Request, Docket No. ER08-73-001, at 6.

<sup>31</sup> As discussed in the June 2008 Order, start-up and minimum load bids under the registered cost option will be limited to 200 percent of projected costs for units in local capacity areas, and 400 percent of projected costs for units outside of these areas. See June 2008 Order, 123 FERC ¶ 61,288 at P 23.

## **B. Use of Basis Swaps**

26. In its Clarification or Rehearing Request, the CAISO identifies the possibility of modifying the projected proxy cost component of its registered cost option to incorporate daily prices for basis swaps,<sup>32</sup> which, in this case, would represent the differential between monthly futures prices for contracts at Henry Hub and final settlement prices for month-ahead gas contracts at various delivery points in California. The CAISO states in its Clarification or Rehearing Request that use of basis swaps in its bid cap calculations would comply with the Commission's directive to use a localized reference point for gas prices, while still allowing the CAISO to base the cost of gas in the registered cost option on Henry Hub futures prices. However, the CAISO raises concerns with respect to increased time and expense in performing basis swap calculations, as well as the level of liquidity in the basis swap market. The CAISO further states that it is concerned with the transparency and availability of basis swap data to market participants.

27. We acknowledge the CAISO's concerns and address those below. However, we find that the CAISO-identified methodology that derives a projected proxy cost of gas using basis swaps has merit. Thus, we believe that the CAISO's consideration of such swaps in determining the projected proxy cost component of the registered cost option may result in just and reasonable bid caps.

28. The CAISO claims that basis swap market data are not sufficiently transparent or available to market participants. We note, however, that exchanges that clear basis swap transactions provide through their websites extensive data on natural gas futures contracts, including data on basis swap settlement prices.<sup>33</sup> This information is publicly available, and is accessible to all of the CAISO's market participants. The Commission believes that this availability of basis swap settlement prices provides an adequate level of transparency into these financial markets for purposes of using this data in the calculation of the projected proxy price for gas under the registered cost option.

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<sup>32</sup> A basis swap is a cash flow exchange of a contract for differences between the agreed-upon differential between two points. In natural gas, one point is always NYMEX Henry Hub, and the other a monthly locational. The settlement value is calculated based on the difference between the futures contract settlement price and the monthly locational settlement price. *See* Natural Gas Supply Association, Natural Gas Marketing, <http://www.naturalgas.org/naturalgas/marketing.asp>; *see also* United States Commodity Futures Trading Commission Glossary, <http://www.cftc.gov/educationcenter/glossary/index.htm>.

<sup>33</sup> *See, e.g.*, NYMEX OTC (over-the-counter) settlement data on natural gas products, including settlement data on the SoCal Basis Swap, and the PG&E Citygate Basis Swap, [http://www.nymex.com/settle\\_fut\\_otc.aspx](http://www.nymex.com/settle_fut_otc.aspx).

29. The CAISO also asserts as a downside to the use of basis swaps, the added time and expense that would be involved in calculating the price of monthly forward gas contracts at Henry Hub for the six-month period. We disagree with the CAISO's concerns over added time and expense. The Commission regularly accesses basis swap information via the internet, and concludes that the few additional steps required to obtain the NYMEX basis swap settlement prices, and to calculate projected future gas prices using this settlement data, are neither burdensome nor time consuming.

30. Finally, regarding the CAISO's concern that basis swap markets may lack adequate liquidity to serve as a viable alternative for compliance with the Commission's directive in the June 2008 Order to calculate bid caps based on gas prices at California locations, we note that NYMEX makes public, via its website, extensive data on open interests in basis swap markets.<sup>34</sup> The Commission takes administrative notice of this market data, which shows that the volume of open interests is substantial in these financial products.<sup>35</sup> This indicates that there is sufficient liquidity in the basis swap market for purposes of developing a regional benchmark to be used in calculating the projected proxy cost.

31. In light of the fact that NYMEX and ICE offer services for clearing trades in these markets, we conclude that basis swap contracts, in conjunction with the NYMEX natural gas Henry Hub futures contract prices, are sufficiently liquid to be representative of natural gas prices at California locations.<sup>36</sup> The CAISO has not presented convincing evidence that use of basis swap data would not produce a realistic set of inputs for purposes of calculating start-up and minimum load bid caps. Further, we note that use of forward price data from the basis swap market in developing a bid cap methodology is consistent with CAISO market participants' general approach to their own forecasts of natural gas prices.<sup>37</sup>

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<sup>34</sup> See NYMEX market data overview of the SoCal Basis Swap, [http://www.nymex.com/NS\\_market\\_data.aspx](http://www.nymex.com/NS_market_data.aspx); see also NYMEX Daily Open Interests Reports, [http://www.nymex.com/ewd\\_fact\\_sheet.aspx](http://www.nymex.com/ewd_fact_sheet.aspx).

<sup>35</sup> See, e.g., NYMEX Open Interest Report Futures Summary, Dec. 11, 2008, <http://www.nymex.com/media/oi121108.pdf>.

<sup>36</sup> See generally, Rocío Uría & Jeffrey Williams, University of California Energy Institute, *The 'Supply-of-Storage' for Natural Gas in California 20*, (2005), available at [http://www.ucei.berkeley.edu/PDF/EPE\\_013.pdf](http://www.ucei.berkeley.edu/PDF/EPE_013.pdf).

<sup>37</sup> See Southern California Gas Company and San Diego Gas & Electric Co., *California Natural Gas Stakeholders Working Group Public Meeting Presentation 3*

32. We take administrative notice that market participants consistently rely on California basis swap data in calculating gas price components of certain market-related formulas.<sup>38</sup> We believe this demonstrates that basis swap markets have been accepted as liquid, efficient and transparent.

33. Accordingly, we find that a sufficient level of activity in the basis swap market exists for purposes of deriving a benchmark reference price that is more closely tied to regional gas prices.

34. The Commission is not endorsing a specific approach, nor is it mandating that the CAISO calculate gas costs in its registered cost option exclusively through use of basis swap data. Rather, after careful consideration, we see merit in a methodology that

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(Dec. 2008), *available at* [http://www.energy.ca.gov/naturalgas/documents/2008-12-04\\_meeting/2008-12-04\\_NAT\\_GAS\\_SCGC\\_AND\\_SDGE.PDF](http://www.energy.ca.gov/naturalgas/documents/2008-12-04_meeting/2008-12-04_NAT_GAS_SCGC_AND_SDGE.PDF) (detailing recorded and expected NYMEX oil and gas prices from 2004 through 2015, based on NYMEX futures prices from SoCal border).

<sup>38</sup> *See, e.g.,* California Public Utilities Commission, *Order Instituting Rulemaking to Develop Additional Methods to Implement the California Renewables Portfolio Standards Program*, “Decision On Market Price Referent for the California Renewables Portfolio Standard,” Decision 08-10-026 at 13-14 (Oct. 2008), *available at* [http://docs.cpuc.ca.gov/word\\_pdf/FINAL\\_DECISION/92445.pdf](http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/92445.pdf) (stating that NYMEX Clearport [California] futures are used to calculate the California basis adjustment of Henry Hub forward gas prices in order to develop the final California gas forecast used in connection with the California renewable energy portfolio program); *see also* Nov. 4, 2008 Testimony of Eric Lavik, Manager of Planning and Financial Analysis in Renewable and Alternative Power, Southern California Edison Company, before the California Public Utilities Commission at 18, *available at* [http://www3.sce.com/sscc/law/dis/dbattach1e.nsf/0/76688AF49E1696F9882574F90062463D/\\$FILE/A.08-11-001++SRAC++SCE+Testimony.pdf](http://www3.sce.com/sscc/law/dis/dbattach1e.nsf/0/76688AF49E1696F9882574F90062463D/$FILE/A.08-11-001++SRAC++SCE+Testimony.pdf) (testifying that the forward gas price value of the market heat rate component of the market index formula is equal to the NYMEX Henry Hub futures contract for the Henry Hub forward price, plus the applicable NYMEX Clearport SoCal basis, plus a forecast for intrastate transportation); *see also* April 14, 2006 Testimony of Michael M. Schneider, Director of Financial Strategy and Analysis for San Diego Gas & Electric Company, before the California Public Utilities Commission at 11, *available at* [http://www.sdge.com/regulatory/documents/a-06-04-018/songs\\_testimony\\_schneider.pdf](http://www.sdge.com/regulatory/documents/a-06-04-018/songs_testimony_schneider.pdf) (testifying that basis swaps trading contract settlement prices at the SoCal Border from NYMEX Clearport are added to Henry Hub futures prices to arrive at the natural gas price forecasts at the California border).

derives a projected proxy cost of gas using basis swaps to obtain a more geographically indicative benchmark.

35. We direct the CAISO to consult with stakeholders and submit within 30 days of issuance of this order a revised proposal for determining a geographically appropriate proxy cost of gas associated with the registered cost option for start-up and minimum load bids.

## **VII. Conditional Acceptance of Compliance Filing**<sup>39</sup>

36. With respect to the CAISO's compliance filing, we reject its proposal to continue using the NYMEX gas futures contracts at Henry Hub to derive a projected proxy cost, without an adjustment to reflect natural gas prices in California markets. As discussed above, we direct the CAISO to submit, within 30 days from the date of this order, revised registered cost option mitigation measures that comply with our directives in this order. We accept the CAISO's proposed clarification of the start-up and minimum load cost provision in section 30.4 of the MRTU tariff, regarding auxiliary power and operations and maintenance cost. We reject the CAISO's proposed definition of projected proxy cost to the extent it relies on Henry Hub to derive the cost, and otherwise accept it. We direct the CAISO to modify the definition of projected proxy cost as appropriate in the compliance filing we direct herein.

### The Commission orders:

(A) The CAISO's request for rehearing or clarification is hereby denied, as discussed in the body of this order.

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

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<sup>39</sup> With respect to the tariff sheets we conditionally accept, we grant waiver of Order No. 614, and direct the CASO to make an informational filing specifying the effective date of the tariff sheets accepted herein prior to the implementation of MRTU.

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

By the Commission. Commissioner Kelliher is not participating.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.