Date of Issuance: 03/29/2012

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ENERGY DIVISION **RESOLUTION E-4471**
March 22, 2012

R E S O L U T I O N

Resolution E-4471.

PROPOSED OUTCOME: This Resolution orders Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric utilities to negotiate to enter into a contract with Calpine's Sutter Energy Center and adopts a non-bypassable charge to pay for the cost of the contract.

ESTIMATED COST: Not to exceed $2.95 million per month, to a total of $17.4 million.

SUMMARY

This Resolution orders Pacific Gas & Electric (PG&E), Southern California Edison (SCE), and San Diego Gas & Electric (SDG&E) to enter negotiations with the Calpine Corporation to offer a contract with the Sutter Energy Center (Sutter). The purpose of this order is to keep the Sutter plant online in 2012, enabling further analysis of the impacts of current and proposed dynamic transfer tariff changes at the CAISO.

BACKGROUND

The Sutter plant, located in Yuba City, is a 572 MW nameplate capacity combined cycle gas turbine (CCGT) power plant, with a net qualifying capacity of 525 MW. The Sutter plant came online on 5/4/2001 and is owned by the Calpine Corporation, indirectly through the Calpine Construction Finance Company, L.P. (Calpine). The California Independent System Operator (CAISO) Generation Capability List indicates that Sutter has three units: two gas turbines with a net dependable capacity of 185 MW each, and one steam turbine with a net dependable capacity of 191 MW. The plant is air cooled rather than once-through cooled (OTC) and is not located in a local capacity area. The Sutter plant is not directly connected to the CAISO, but is one of a small number of resources using a pseudo-tie to connect to the CAISO grid. It was originally connected to the Western Area Power Administration, which later joined the Sacramento Municipal Utility District. The pseudo-tie allows the Sutter plant to provide resources, more flexibly than via traditional import rules, using the CAISO's dynamic transfer tariff. The Sutter plant originally was under contract to Sacramento Municipal Utility District (SMUD), from 2001 to 2005.[1] The December 2005 Federal Energy Regulatory Commission (FERC) acceptance with modifications of the CAISO pseudo-tie agreement allowed the CAISO to dispatch the Sutter plant, and allows Calpine to receive revenues from CAISO markets.[2] In Calpine's General Order (GO) 167 notice to the Commission, Calpine stated that the Sutter plant was not under contract for the 2012 resource adequacy year.[3]

The Commission's GO 167, Operation and Maintenance Standards for Power Plants, adopts certain operating availability standards applicable to covered Generating Asset Owners (GAO's). As discussed in more detail in the Discussion section below, GO 167 requires power plants to provide notice to the Commission if they are going to shut down. Calpine filed a GO 167 notice (Notice) on 11/22/2011 with the Commission stating that it was planning on retiring the plant in 2012 due to a lack of a resource adequacy contract. If retired, the plant will not be available for commercial operations in 2013 and later years.

Simultaneously with the Notice filed with the Commission, Calpine filed notice with the CAISO stating their request for a Capacity Procurement Mechanism (CPM) designation. Section 43.2.6 of the CAISO Tariff states that the CAISO may issue a CPM designation for capacity at risk of retirement if all five requirements

---

[1] Calpine signs on SMUD as long-term customer for new Sutter power plant, http://www.thefreelibrary.com/Calpine+Signs+On+Sacramento+Municipal+Utility+District+as+Long-Term...-a058619841

[2] 113 FERC 61,261. https://www.ferc.gov/whats-new/comm-meet/121505/E-9.pdf

[3] Notice of Change in Long-Term Status of Sutter Energy Center, filed 11/22/2011.

specified in the tariff section are met.[4] On 12/06/2011, the CAISO reported that it intended to seek a FERC waiver for one requirement for the CPM that allows the CAISO to procure backstop capacity.[5] The CAISO report also substantiated their reasoning for seeking the FERC waiver. The CAISO determined that the Sutter plant is needed for operation flexibility in 2017 and beyond in a high load scenario. The CAISO determined that the need was system wide, and that all benefitting customers would be charged via the Transmission Access Charge (TAC) if the waiver were approved and the Sutter plant were subject to the CPM. The CAISO report's reasoning for intending to request the FERC waiver included the concern that if the Sutter plant is retired in 2012, the plant may not return to commercial operations in future years because under Environmental Protection Agency policy, the plant would likely need to undergo New Source Review and obtain a new air quality permit. The CAISO explained that Calpine's request included appropriate documentation including "any analyses the resource owner performed, or had performed, to determine whether it is economic for the resource to remain in service during the current year including supporting documents".[6] Comments were requested from parties seven days after the

---

[4] Section 43.2.6 of the CAISO Tariff, paraphrased from California ISO Report on Basis and Need for CPM Designation for Sutter Energy Center and stakeholder comments, December 6, 2011. This section covers the five point test for CPM eligibility. 1) Not currently under RA contract for the current year; 2) CAISO did not identify deficiencies in any RA plans for LSEs resulting in a CPM designation; 3) CAISO technical assessments indicate the resource is needed for operational or locational reliability purposes in the current year; 4) no new generation projected to come online in the next year that meets that need; and 5) resource owner submitted at least 180 days in advance of shutdown a notice that the facility is seeking CPM. http://www.caiso.com/informed/Pages/StakeholderProcesses/CapacityProcurementMechanismDesignation_SutterEnergyCenter.aspx

[5] California ISO Report on Basis and Need for CPM Designation for Sutter Energy Center and stakeholder comments, December 6, 2011. http://www.caiso.com/informed/Pages/StakeholderProcesses/CapacityProcurementMechanismDesignation_SutterEnergyCenter.aspx

[6] Ibid, at 11.

CAISO report was issued, in accordance with the CAISO's Tariff Section 43.2.6. Seventeen stakeholders provided public comments (including the CPUC's Division of Ratepayer Advocates). Given the timing contingencies of the intended FERC waiver filing, if granted the CPM is likely to occur no earlier than June 2012. On January 26, 2012, CAISO filed the petition for FERC waiver.[7]

The CAISO report did not specify the CPM's proposed duration, cost, or MW quantity. However, the recent CPM Settlement sets a price of $5.63/kW-month.[8] The CAISO has not identified the minimum capacity that would need to be procured under the CPM. The plant can be designated for the months following the approval of the FERC waiver. On the high end, if the unit were fully procured at its maximum net qualifying capacity, the CAISO TAC charge would be just over $2.9 million per month.[9] This total cost is slightly higher than a six month CPM in the CAISO's filing before FERC, at $17.4 million.[10] On the lower end, the 2010 Resource Adequacy Report had a median capacity payment of $1.50 / kW-month for generic system resources.[11] At the median resource adequacy price for system resources, the cost of this plant would be approximately $787,500 per month.[12]

---

[7] Petition for waiver of tariff provisions re Sutter Plant in docket no. ER12-897-000. http://www.caiso.com/Documents/2012-01-26_ER12-897_Sutter_Pet_TariffWaiver.pdf

[8] Docket No. ER11-2256-000, CAISO offer of settlement. http://www.caiso.com/Documents/2011-12-23_ER11-2256_CPMOoS.pdf

[9] A maximum price is calculated by $67.50 kW-year (CPM price) * / 12 months = $5.63 / kW-month. $5.63 / kW-month * 1000 kW per MW * 525 MW (max of the NQC range) = $2.95 million / month, with up to 6 months on contract leading to $17.7 million.

[10] The CAISO's tariff waiver filing before the FERC (ER12-897-000) at page 37 has this value, which is lower than the $17.7 million calculated above.

[11] 2010 Resource Adequacy Report. http://www.cpuc.ca.gov/NR/rdonlyres/DD04CAF6-53AD-4D52-A5A3-E576746776DF/0/2010RAreport.DOC

[12] This price is calculated by $1.50 / kW-month * 1000 kW per MW * 525 MW = $0.27 million / month.

The CAISO and Calpine have both stated that the Sutter plant is not currently under contract to any Load Serving Entity (LSE) in the 2012 resource adequacy compliance year. If the Sutter plant comes under contract from a LSE, then the FERC process would come to a halt, since the resource would have come under contract. Otherwise, the CAISO has indicated that it will start the minimum of 30 day process for an LSE to procure the resource if the waiver is granted at FERC.

Calpine has stated in its briefs on the Commission's 2010 LTPP rulemaking (R.10-05-006) that wholesale market revenues alone are insufficient to keep the plant in operation.[13] The cost and feasibility of Calpine's temporarily shutting down the Sutter plant and resuming operations in later years are unknown. Lastly, the FERC CPM mechanism has not yet been tested or used to procure resources beyond the extant resource adequacy year. The CPM is designed to designate plants only for one year. The longer-term or broader market implications of a FERC waiver for this plant are not known.

The analysis of the four Commission required-scenarios utilized in R.10-05-006 indicated there is no identified need for new system resources in 2020.[14] R.10-05-006 has examined four different scenarios, around four different renewable energy procurement futures, with high- and low-load sensitivity around the trajectory scenario. Testimony was filed on July 1, 2011.[15] The analysis was conducted by the CAISO and Joint-Investor Owned Utilities (IOUs) with stakeholder input and feedback, and demonstrated no need for additional resources in all scenarios except for the high load sensitivity. The analysis examined only the end year of 2020, not the intervening years. There has been no final decision of a Commission need determination decision in R.10-05-006.

---

[13] Calpine September 16, 2011 brief in R.10-05-005.
http://docs.cpuc.ca.gov/efile/BRIEF/143826.pdf

[14] R.10-05-006. http://docs.cpuc.ca.gov/Published/proceedings/R1005006.htm

[15] 2010 Long Term Procurement Plan System Plans.
http://www.cpuc.ca.gov/PUC/energy/Procurement/LTPP/LTPP2010/LTPP_System_Plans.htm

The CAISO report did not include more recently available information. For example, the Oakley plant approved by this Commission in D.10-12-050 was excluded. Similarly, in ongoing work regarding AB 1318, Electrical System Reliability Needs of the South Coast Air Quality Basin, the CAISO has preliminarily identified an incremental need of 2,000 MW of new resources in the Los Angeles Basin based on OTC retirements.[16]

The Commission has before it an application from SDG&E for 450 MW of facilities located in San Diego that could come online before 2016. In addition, in the case of higher than expected load growth some power plant capacity that by 2020 must be materially in compliance with the State Water Resources Control Board's OTC policy, or cease operations, could remain on-line while additional flexible capacity was developed.[17]

DISCUSSION

The Calpine GO 167 notice was filed with the Commission appropriately.

General Order 167 (GO 167) – Operation and Maintenance Standards for Power Plants - adopts certain operating availability standards applicable to covered Generating Asset Owners (GAO's). There are three GO 167 Operating Standards involved in plant retirements. Operating Standard (OS) 22 requires a GAO to maintain its unit in a state of "readiness" to provide full available power, except during specified necessary maintenance or forced outages. OS 23 requires notification of long-term changes in the operating status of a unit. OS 24 requires GAOs to obtain the Commission's approval, in consultation with the CAISO, prior to closing a generating facility or making any long-term changes in

[16] CAISO August 18, 2011 Memorandum to CAISO Board of Governors on Renewable Integration.
http://www.caiso.com/Documents/Board%208)%20Briefing%20on%20renewable%20integration

[17] Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling.
http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/docs/policy100110.pdf

operating status, provided that there is a "mechanism to compensate the GAO for readiness services provided."

Calpine's November 22, 2011 letter to the Commission satisfies the OS-23 notice requirement.

The Commission has not made a final need determination in R.10-05-006.

In order to grant approval to close a generating facility, the Commission must determine that there is no need for the facility. We have not issued a decision on system need in R. 10-05-006, but both Calpine and the CAISO have signed a settlement agreement filed in that proceeding.[18] In the settlement the parties agreed that no new resources conclusively were demonstrated as needed for system reliability in any of the scenarios. Furthermore, the parties stated "There is general agreement that further analysis is needed before any renewable integration resource need determination is made."[19] At the same time, the Commission's interest in expanding the role of renewable resources in California's energy mix has created a desire to access resources that are "flexible" for renewable integration, as well as those not connected directly to the CAISO grid. The CAISO tariff does not yet identify the precise characteristics of "flexible" resources needed for renewable integration, but there is an ongoing intensive stakeholder process reviewing the need for CAISO tariff modifications that would provide the market mechanism for procuring specific types of flexible resources.[20] Pseudo-ties and dynamic transfers are one way that may provide additional flexibility and/or lower costs by accessing resources located outside of the CAISO's transmission footprint.

---

[18] Motion for approval of Settlement Agreement.
http://docs.cpuc.ca.gov/efile/MOTION/140823.pdf

[19] Settlement Agreement at page 4.

[20] Renewable integration market and product review, phase 1.
http://www.caiso.com/27be/27beb7931d800.html

Benefits associated with better understanding the changing dynamics of the CAISO's pseudo-tie and dynamic transfer tariff changes.

The pseudo-tie agreement has provided the CAISO with valuable data regarding dynamic transfers since the agreement was signed between Calpine and the CAISO. The agreement remains in effect until either party has cancelled it. In light of the CAISO's revised draft tariff language regarding dynamic transfers, maintaining facilities that have pseudo-tie agreements is beneficial to understanding the role these agreements may play in California's and other states' energy futures. As one of three resources, and the largest resource, currently connected by a pseudo-tie agreement, the Sutter plant could provide valuable information to the CAISO and stakeholders about the impact of these tariff changes. Given the concerns filed at FERC regarding the tariff language, the data from maintaining Sutter in 2012 would support greater understanding of the tariff changes. The assumptions in R.10-05-006 demonstrate the importance of dynamic transfers. Fifteen percent of out-of-state renewable resources in 2020 are assumed scheduled via dynamic transfer. This assumption represents a significant increase from the three units currently dynamically transferred today (and a doubling of the capacity dynamically transferred), and represents an increased flexibility requirement for the CAISO grid as compared to resources firmed and shaped in other balancing area authorities.

We believe there is a need for more information on the strengths, weaknesses and capabilities of connecting to the grid through a pseudo-tie using the CAISO's dynamic transfer tariff. Therefore we believe there is a need for the continued operation of the Sutter plant.

The IOUs are ordered to negotiate a limited term contract with Calpine for the Sutter plant and file a contract with the CPUC.

The IOUs should jointly negotiate a limited term contract with Calpine. A contract between the IOUs and Calpine's Sutter plant would satisfy the compensation mechanism requirement of OS 24. If any other funding source is secured in this period, the authority for the IOUs to negotiate with the Sutter plant is rescinded.

This Commission has the authority to authorize the IOUs to procure energy under Public Utilities Code Sections 454.5 and 701. Pending further renewable integration analysis in R.10-05-006, it is only prudent to execute a contract of limited term. Therefore, the IOUs should contract with the Sutter plant in order to retain this dynamically transferred resource. The contract should be executed in a manner that minimizes the cost to ratepayers. It is expected that in the contract the costs should be significantly below what would be paid if the Sutter plant were subject to the CPM. This approach is consistent with the requirement to provide just and reasonable rates under Public Utilities Code Section 454.5. As part of these negotiations, Calpine shall provide cash flow models and other detailed financial information to the Energy Division and an Independent Evaluator.

The IOUs are ordered to file a joint Tier 2 advice letter. If a contract is negotiated, the advice letter will seek Commission approval of the contract and tariff sheets to implement the contract costs as a non-bypassable charge. Otherwise the advice letter will inform the Commission of negotiation failure. This filing will allow Staff review of any costs associated with a contract authorized by this Resolution. The IOUs shall complete negotiations and file the advice letter within 30 days from the effective date of this resolution.

It is prudent for the IOUs to engage an Independent Evaluator as part of the contract oversight process. The Independent Evaluator shall include their report when the joint Tier 2 advice letter is filed. Independent Evaluators have been utilized since D.04-12-048 to monitor contracting processes.

Calpine is ordered not to retire the Sutter plant.

While the negotiations for a contract are ongoing, the Sutter plant is ordered by the Commission not to retire.

COMMENTS

"Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

"The 30-day comment period for the draft of this resolution was neither waived or reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the Commission's agenda no earlier than 30 days from today."

We received comments on 1/31/2012. No parties clearly stated their support for the resolution. Neutral were the California Independent System Operator who explained their perspective on the need for the Sutter plant and clarifications to their interpretation of the Settlement Agreement; California Municipal Utilities Association because Municipal Departing Load customers have previously been considered exempt from non-bypassable charges; Independent Energy Producers Association who questioned language regarding the ability of the Commission to order a plant to remain in operation and highlighted the Sutter plant as indicative of broader market structure issues; and NRG Companies encouraged the Commission to focus on broader market structure issues.

Opposing parties were California Large Energy Consumers Association that this preempts the LTPP process and is based on little evidentiary record; Californians for Renewable Energy based on out of market procurement; Coalition of California Utility Employees due to going outside of competitive markets and uncertain benefits ; Division of Ratepayer Advocates due to future uncertainties regarding the actual need for the facility and establishing a bad precedent; the "Joint Parties"[21] on questions over pseudo-tie benefits, the Commission picking winners and losers outside of the RA process, and a lack of clear needs for the plant; Pacific Gas & Electric due to questions over the benefit of additional information from the pseudo-tie and difficulties in coordinating a contract with all three IOUs and Calpine; San Diego Gas & Electric because of import constraints, uncertain contracting expectations, and the need for broader market reforms; Southern California Edison based on broader market structure issues and questionable needs for the Sutter plant; The Utility Reform Network who explained that a dangerous precedent would be established for a facility based on uncertain needs and that Calpine's financial need was not clearly demonstrated; and the Western Power Trading Forum on grounds of competing rationales between the CAISO and Commission for maintaining Sutter and bypassing its other procurement programs such as the LTPP and Resource Adequacy.

[21] Energy Users Forum, Alliance for Retail Energy Markets, Direct Access Customer Coalition, Retail Energy Supply Association, Marin Energy Authority, Shell Energy North America.

Reply comments were received on 2/6/2012 from the Calpine Corporation indicating a need for broader market reform; Division of Ratepayer Advocates reiterating their opposition and indicating that the Settlement Agreement indicated the current renewable integration studies are inconclusive; San Diego Gas & Electric indicating a need to adjust the procurement cap based on the CAISO filing and concerns over the "Path 26" counting constraint; Southern California Edison recommending an "open book" negotiation process and that renewable integration modeling is incomplete; The Utility Reform Network expressed its concerns over the current state of renewable integration modeling; and the Western Power Trading Forum confirming their opposition to the resolution.

Based on comments, revisions included requiring the use of an Independent Evaluator to provide third party oversight recommended by San Diego Gas and Electric and supported by Southern California Edison, a clarification on the total price cap based on the CAISO's tariff waiver filing at the FERC recommended by the CAISO and San Diego Gas and Electric, the use of limited "open book" negotiations where detailed financial documents are provided to Energy Division and the Independent Evaluator as recommended by Southern California Edison, and requiring a Tier 2 advice letter filing rather than Tier 3 with clarifications to the requirements appropriate for approval of the contract based on comments regarding uncertainty over the pseudo-tie benefits raised by Pacific Gas & Electric, the "Joint Parties", and San Diego Gas & Electric.

FINDINGS

1. Calpine Corporation indirectly owns the Sutter Energy Center through its subsidiary the Calpine Construction Finance Company, L.P.
2. Calpine filed a letter on November 22, 2011 in compliance with General Order 167, Operating Standards 23, stating that it was planning on retiring the Sutter plant in 2012 due to the lack of a resource adequacy contract.
3. On November 22, 2011, Calpine filed a letter with the CAISO requesting that the Sutter plant be subject to the Capacity Procurement Mechanism (CPM).
4. On December 6, 2011, the CAISO filed a notice of intent to file for waiver before FERC. The notice included a report indicating that the Sutter plant's capacity was needed in 2017, not 2012 as required under the tariff.
5. On January 26, 2012, the CAISO filed a Petition for Waiver of Tariff Provisions and Request for Confidential Treatment in FERC Docket No. ER12-897-000 seeking the authority to procure the Sutter plant during 2012 pursuant to the risk of retirement provisions of the CPM.

6. If the Sutter plant receives funding via some source, the need for the CPM is removed.
7. The CAISO did not find deficiencies in the 2012 resource adequacy plans.
8. The long-term impacts of FERC granting a waiver for use of the CPM mechanism for the Calpine Sutter plant are uncertain.
9. The current CPM price is $67.50 per kW-year or $5.63 per kW-month.
10. A maximum cost of $2.95 million per month would accrue to CAISO's Transmission Access Charge if the CAISO receives a FERC waiver to use the CAISO's CPM to procure the Sutter plant. The absolute maximum CPM cost is $17.4 million based on the CAISO's filing at FERC.
11. The Commission's R.10-05-006 has not identified needs for new generation to meet the planning reserve margin through at least 2020, but the proceeding has not issued a final decision. There is a settlement agreement in the proceeding under the Commission's consideration regarding the need for new generation.
12. The CAISO report did not identify needs that required additional generation under the four mid load scenarios or the low load sensitivity in R.10-05-006. However, the report concluded that additional flexible resources were needed by 2017 under a high load sensitivity. These resource needs increased if the Sutter plant was retired.
13. Calpine's Sutter plant is connected to the CAISO via a pseudo-tie and has been utilized as a fairly unique pseudo-tie pilot plant.
14. There are significant changes currently under way to the CAISO's dynamic transfer tariff and dynamic transfer units that may be very important for delivering renewable energy and/or providing operational flexibility.
15. A renewable integration product has not yet been defined by the CAISO but is under consideration in the CAISO's intensive renewable integration stakeholder process.
16. Under GO 167, a plant may change its long term status only with approval from the Commission.
17. If a plant is requested by the Commission to remain online under General Order 167, it must receive a funding mechanism to compensate it for the readiness services provided.
18. The Commission may order a utility, or utilities, to negotiate contracts.
19. Under Public Utilities Code Section 454.5, there is a requirement for just and reasonable rates.
20. The identified need of the Sutter plant is system wide, and any benefits and costs should be applied via a non-bypassable charge to all benefitting customers.

21. Use of “open book” financial information provides an additional layer of oversight for the Commission in assessing a contract.
22. Independent Evaluators have provided beneficial oversight in the contracting processes for the IOUs.

THEREFORE IT IS ORDERED THAT:

1. Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric are directed to enter into contract negotiations with Calpine on the Sutter plant for a price less than that available under the CPM.
2. Calpine shall provide cash flow models and other detailed financial information to the Independent Evaluator and Energy Division.
3. Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric shall file a Tier 2 advice letter upon the completion of negotiations, which shall be no later than 30 days after the effective date of this resolution.
4. Pursuant to General Order 167, Operating Standard 24, Calpine is ordered not to retire the Sutter plant until this matter is either resolved before the Federal Energy Regulatory Commission or negotiations are successfully concluded and the Tier 2 advice letter approved.
5. When seeking approval of a contract, Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric shall include in the advice letter tariff sheets to recover the cost of the contract through a non-bypassable charge on all benefiting customers and explain how the contract meets the just and reasonable rates requirements under Public Utilities Code Section 454.5.
6. A report from an Independent Evaluator selected by Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric shall be included along with the Tier 2 advice letter.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on March 22, 2012; the following Commissioners voting favorably thereon:

/s/PAUL CLANON
PAUL CLANON
Executive Director

MICHAEL R. PEEVEY
President

TIMOTHY ALAN SIMON
CATHERINE J.K. SANDOVAL
Commissioners

I reserve the right to file a concurrence.
/s/ TIMOTHY ALAN SIMON
Commissioner

I dissent.
/s/ MICHEL PETER FLORIO
Commissioner

I reserve the right to file a concurrence.
/s/ CATHERINE J.K. SANDOVAL
Commissioner

I dissent, and reserve the right to file a dissent.
/s/ MARK J. FERRON
Commissioner

Concurrence of Commissioner Timothy Alan Simon on Item 47: Resolution E-4471 Pacific Gas and Electric Company, Southern California Edison Company and San Diego Gas & Electric Company to Enter into Negotiations With Calpine's Sutter Energy Center

My concurrence with Resolution E-4471 is based on my understanding that it orders Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric to negotiate a limited term contract with Calpine's Sutter Energy Center (Sutter).[1] This Resolution also adopts a non-bypassable charge to pay contract costs (approximating a range of total costs from $2.95 million per month to $17.4 million maximum).[2] The purpose of this Resolution is to keep the Sutter plant online in 2012 and to further enable analysis of current and proposed "dynamic transfer" tariff changes at the California Independent System Operator (CAISO).

Sutter Energy Center's History and Foreseeable Future

I support this Resolution for several important reasons consistent with its history and foreseeable future. Built in response to the supply shortages of the California energy crisis,[3] the Calpine Sutter project began construction in June 1999 and was completed in 2001. This classifies Sutter as a relatively modern generator compared to California's existing gas natural gas fueled generation fleet. Without the compensation contract authorized by this Resolution, the 572-MW natural gas-fired combined cycle gas turbine (CCGT) Sutter plant in Yuba City would retire in 2012. It was originally connected to the Western Area Power Administration (WAPA), which later joined the Sacramento Municipal Utility District (SMUD).[4] As a result of this history, the Sutter facility does not fall directly within the CAISO. But, by virtue of existing procurement policies under

---

[1] Resolution (Res.) E-4471 p.8

[2] Res. E-4471 p.4 and Findings #10 p.12

[3] See: http://phx.corporate-ir.net/phoenix.zhtml?c=103361&p=irol-newsArticle_print&ID=187585&highlight=

[4] Res. E-4471 p.2

the CPUC, it faces closure. Yet, in comparison to available proposed generation, its pseudo-tie provides benefits to the CAISO,[5] which ultimately provides affordable reliability to California ratepayers.[6]

Significant changes to the CAISO dynamic transfer tariff and dynamic transfer units are currently underway that may be very important for delivering renewable energy and/or operational flexibility.[7] CAISO lists Sutter as not connected to the CAISO control area but linked to the CAISO's grid via a pseudo-tie. The pseudo-tie allows the Sutter plant to provide resources, more flexibly than via traditional import rules, using the CAISO's dynamic transfer tariff.[8] The Resolution notes that, as the CAISO dynamic transfer policy goes through further changes, the Sutter facility is a good example of a plant located outside the CAISO control area.

Dynamic transfers are a type of interchange scheduling that transfer power, located in one source or balancing area to another in real-time. This is also known as importing and exporting power across different balancing area borders resources. Dynamic transfer provides merchant and reliability entities with a standard method to easily and quickly exchange electricity between balancing areas and enable loads to quickly respond to variations in wind or solar conditions, or changes in load demand. Based on this principle, I also support this Resolution because the Sutter plant will have an important role to play and would be a test case plant that is not located in the CAISO balancing area to participate in the CAISO market.

<u>Environmental, Technical and Cost Benefits of the Sutter Energy Center</u>

---

[5] Res. E-4471 p.7-8

[6] Res. E-4471 Findings #20 p.12

[7] Res. E-4471 p.6 and Findings #14 p.12

[8] Res. E-4471 p.2

The Sutter facility is also desirable as a comparatively cleaner and lower cost facility. This Combined Cycle Gas Turbine fast ramp facility benefits from the abundance and environmental advantages of natural gas. Natural gas falls below the California low carbon fuel standard (the Greenhouse Gas Emission Performance Standards Act, Senate Bill 1368, Perata, 2006) and due to the developments in unconventional shale gas exploration, including recent finds in Central California [9] the price of natural gas is at an all-time low[10]. This ten-year old plant is air-cooled, instead of once-through (water)-cooled technology that will sunset under US Environmental Protection Agency guidelines. The Sutter gas turbines are very efficient with heat rate in the 7000s Btu/kWh and furnished with dry low NOX (mono-nitrogen oxides) combustors for NOX control. The Heat Recovery Steam Generator is provided with an SCR (Selective Catalytic Reduction to convert nitrogen gases) system using anhydrous ammonia to reduce NOX emission.

CAISO Reliability Concerns and CPUC Jurisdiction

According to CAISO, the Sutter plant will be needed for reliability. On January 25, 2012, the CAISO submitted a petition[11] to Federal Energy Regulatory Commission (FERC) requesting that FERC waive applicable tariff provisions to prevent the retirement in 2012 of the Sutter Energy Center. The plant is needed to support the reliable operation of the CAISO grid in 2017 and beyond. Calpine submitted a request for capacity payment mechanism designation of the Sutter plant for 2012 and stated that absent a capacity procurement mechanism designation, the plant will retire as soon as May 2012. The CAISO requested that FERC issue an order by March 29, 2012 to allow timely designation of the Sutter plant as a capacity procurement mechanism resource during 2012, thereby

---

[9] Department of Energy 2011 report found that an estimated 15 billion barrels of crude, the Monterey and Santos shale formations near Los Angeles and in the San Joaquin Valley are the richest U.S. shale prospects. (Bloomberg, March 26, 2012).

[10] Today the natural-gas prices are hovering below $3/MMbtu, Platt's March 2012 gas price average.

[11] California Independent System Operator , FERC Docket ER12-897, January 25, 2012.

avoiding closure of the facility. The CAISO anticipates that retirements of the once-through cooling resources will create a capacity gap of more than 3,500 MW needed to serve load in the CAISO's balancing authority area as early as the end of 2017, and the CAISO projects this capacity gap to grow to 4,600 MW by 2020. The ISO's analyses identifying this capacity gap take into account new capacity additions, most of which will be variable resources. If the Sutter plant retires, the capacity gap identified by the ISO will grow by an additional 525 MW, thereby aggravating an already challenging situation. Hence, it is imperative for the CPUC to exercise its intrastate jurisdictional authority for the benefit of California's grid reliability without reliance or abdication to the FERC.

California's Current Electricity Market

Since the energy crisis California has come a long way from generation-missing to generation-adequacy. With a still fragile economy resulting in lower load and adequate generation supply some independent generators are facing closure. In a competitive market such concerns would not be a burden on ratepayers and ratepayers should not be asked to pay. However, California is a hybrid market and the restructured electricity market provides competitive opportunities for independent generators. California has limited direct access; hence this process requires the direction of this commission, in conjunction with the CAISO to assure reliability.

Conclusion

Going forward, however, I do have concerns that under the current structure independent producers will have difficulty surviving. Without this competitive source of generation, ratepayers will be burdened with by-passable charges that would not exist in restructured market. My preference would clearly be to examine the overall problem of how to incent independent generators to stay in business, while still fostering a competitive market that will benefit California ratepayers. I urge this Commission to examine alternatives, including a year-by-year backstop payment mechanism and a multi-year term payment mechanism to better address this situation. If properly administered, plants like Sutter can remain in operation by way of market forces addressing the California and the CAISO ever-growing reliability needs.

Accordingly, I concur with this Resolution and urge utilities to negotiate contracts with Calpine Sutter facility.

Dated March 29, 2012 at San Francisco, California.

/s/ TIMOTHY ALAN SIMON
TIMOTHY ALAN SIMON
Commissioner

Concurring Opinion of Commissioner Catherine J.K. Sandoval

It is important to emphasize what Resolution E-4471 does and does not do. This Resolution directs the Investor Owned Utilities (IOUs), Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric, ″to enter into contract negotiations with Calpine on the Sutter plant for a price less than that available under the Capacity Procurement Mechanism." Sutter Resolution, (Ordering Clause 1). The resolution does not presuppose the outcome of those negotiations and does not mandate the parties to enter into a contract. We expect all parties subject to the Resolution to negotiate in good faith to determine if a contract is in the best interest of ratepayers, keeping in mind the short, medium, and long-term needs of utility customers for energy resources. The resolution emphasizes any proposed contract "should be executed in a manner that minimizes the cost to ratepayers" in accordance "with the requirement to provide just and reasonable rates under Public Utilities Code Section 454.5."

Resolution E-4471 imposes several layers of review on any potential contract the parties may reach. It requires the IOUs to employ an Independent Evaluator as part of the contract oversight process and directs that "Calpine shall provide cash flow models and other detailed financial information to the Energy Division and an Independent Evaluator." Any contract is subject to approval by the California Public Utilities Commission (CPUC) and its Energy Division. The resolution directs: "If a contract is negotiated, the [Tier 2] advice letter [the parties must file] will seek Commission approval of the contract and tariff sheets…to allow staff review of any costs associated with a contract authorized by this Resolution." If the parties propose to enter into a contract, their advice letter seeking CPUC approval must explain how the contract meets the just and reasonable rates requirements under Public Utilities Code Section 454.5.

Resolution E-4471 was approved in light of the California Independent System Operator (CAISO) assessment of California's medium and long-term power needs. This included CAISO's evaluation of power resources needed to support integration of renewable energy, and its assessment of future demand as California's economy recovers and energy demand increases. CAISO determined that the Sutter plant is needed to provide operational flexibility for California's energy grid in 2017 and beyond, particularly in a high-demand scenario. In comments regarding the Sutter Resolution, parties including TURN emphasized the need for CAISO to provide transparent models for its energy forecasts that communicate the model's assumptions about resource supply and demand. CAISO's models, developed in coordination with the CPUC, the California Energy Commission, other state agencies, and California stakeholders, are critical to our decisions about the power resources California needs to support its people and economy, and will play a key role in our assessment of California's long-term energy needs.

On March 22, 2012 the CPUC adopted an Order Instituting Rulemaking (OIR) for the 2012 Long Term Procurement Plan (LTPP) proceeding to analyze our procurement policies and consider long-term procurement plans. In the 2010 LTPP proceeding parties emphasized the need for clarity and transparency in the CAISO models, and for those models to fully consider alternative scenarios including retrofit of some plants that require major upgrades to comply with environmental regulations, specifically the policy on the use of coastal and estuarine waters for power plant cooling. We look forward to participating with CAISO in the development of those models and to CAISO's participation in our 2012 LTPP proceeding to provide the foundation for California's future energy needs.

The Sutter Resolution takes place against the backdrop of the market mechanisms the CPUC had adopted for energy procurement. Under the current rules, existing energy resources (existing power plants) may contract with load serving entities and participate in the CAISO's spot markets. An expedited CPUC approval process is available for contracts between IOUs and existing generation that are under five years in duration, and IOUs and existing generation may file an application for CPUC approval for any contracts they enter into with a duration of 5 years or more. Existing generation resources are also eligible to compete in the IOU Resource Adequacy market which requires IOUs to secure sufficient energy resources to meet 115% of their bundled customer load in the year ahead. New energy infrastructure resources are eligible to compete for long-term contracts lasting for 10 years or more.

The 2012 LTPP Rulemaking asks, among other questions, whether adjustments are needed to the procurement rules for contracts of 10 years or more to open competition for those contracts to existing generation. Limiting eligibility for contracts of 10 years or more to new resources fostered the development of new energy resources that helped to end California's Energy Crisis in the early 2000's. It is now prudent for us to review whether those rules remain appropriate in light of current market conditions. Many plants, like Sutter, comply with current environmental rules and could produce energy and provide capacity for another 20 years or more. It is critical that the CPUC determine whether existing or new generation would best serve California's energy needs and provide safe, reliable power at just and reasonable rates.

Resolution E-4471 gives the parties latitude to determine if any contract is appropriate to support IOU energy and resource adequacy needs, and to recommend the appropriate duration of any such contract, subject to review by the CPUC and the Independent Evaluator's analysis. The parties should closely monitor the LTPP proceeding to determine if securing energy resources in a competitive market, subject to any revisions the CPUC may consider or adopt in the LTPP proceeding, would be more conducive to serving their customers' needs and securing power at just and reasonable rates. We look forward to the parties' good-faith negotiations and evaluation of Sutter's potential role in supporting the State's projected power needs.

Dated March 29, 2012

/s/ <u>CAHTERINE J.K. SANDOVAL</u>
Catherine J.K. Sandoval
Commissioner

Dissent of Commissioner Mark J. Ferron on Resolution E-4471 regarding Calpine's Sutter Energy Center on March 22, 2012.

I share the concern of the California Independent System Operation (CAISO) regarding system reliability: although the Commission's own determination as to the need for renewable integration (which Sutter might be able to provide…) was inconclusive, the CAISO has determined that under certain high load scenarios, the Sutter plant may be needed starting in 2018. This scenario is particularly true if the state's policy of retiring the Once Thru Cooled coastal plants occurs. At this point, we just do not know enough but it seems that the CAISO is being ultra-conservative. While I may question their assumptions or approach, I respect their conclusion.

I also agree that it seems counter to the public interest for a relatively modern generating plant to have to shut down because it can't find immediate revenues or other funding sources to support its on-going expenses. Power plants are long term assets, and we want a market that can reward long term infrastructure build out. If market forces dictate the closing of this plant, it would have a devastating impact on the people of Sutter County, both the direct employees of the plant and the local economy overall.

However, the problem facing the Sutter plant is system wide: it appears we may have a "hole" in our market and planning structure whereby there are insufficient economic incentives for generating plants which provide useful flexible attributes to cover the cost of maintaining these plant in operation.

I believe that the Commission, in consultation with the CAISO, needs to immediately work to create a coordinated approach across our own Resource Adequacy and Long Term Procurement Planning procedures and the CAISO's system and reliability planning process to address this market shortcoming.

But it will take some months to agree on how this new approach will work, and even longer to design and execute the plan. The Sutter plant has an immediate need for revenues. Calpine, the plant's owners, has stated at FERC and with CAISO that it needs $17 million dollars for 2012 - - the cost cap specified in the resolution - - in order to keep from shutting its doors. I am sympathetic to Calpine's predicament.

It may be reasonable to spend a certain amount of ratepayer money as "insurance" to keep the Sutter plant operational while the new coordinated market approach is developed. However, as with many issues, the Commission is charged with determining how much money is fair and reasonable to spend on such insurance, as well as the longer term consequences of this ad hoc intervention.

After reviewing the market prices for alternate resources available to the utilities to meet their current Resource Adequacy (RA) needs, I do not see how the utilities will be achieving least cost procurement of RA at anything close to a price of $17 million that Calpine says is needed. Nor do I see any other way for Calpine to get their $17 million that is a good value for the ratepayer. Simply put, I think that the insurance premium contemplated in the Resolution is too high. We have heard it argued that if we do not pass this resolution today, the Sutter plant would be shuttered and sold off for spare parts or scrap tomorrow. I don't share those apocalyptic visions.

First, CAISO has already asked FERC to allow a Capacity Procurement Mechanism payment to Sutter for backstop capacity. While I understand the desire to keep the resolution of this California-specific issue here within the CPUC, this approach would have the practical implication of having the cost of the backstop capacity spread across the entire state. I believe this is a more appropriate mechanism than an above market RA contract borne on the back of ratepayers in investor owned utility territory only.

Secondly, even if FERC were to deny this backstop payment, the plant still has significant value as an operating asset in excess of its scrap value. I am fairly confident that Calpine, or some other future operator, will find a way to keep the plant relevant in the California energy market going forward.

We must also be mindful that there is a wider universe of similar vintage plants in similar economic situations, and if we agree to the kind of ad hoc intervention contemplated by the Resolution, then we may find a long queue of similar requests. I believe that if we attempt to assist Calpine with their Sutter predicament at the high price in the Resolution, we would be retarding the development of a longer-term market solution, and at an unreasonable short-term cost to ratepayers.

This is a difficult decision. However, as with many issues, the Commission is charged with balancing the narrow potential needs of one market player with broader market and policy goals. If it is true that Sutter cannot survive economically in California without this interim payment - - something that I do not believe is the case - - then that is a reality we have to face. Ultimately, I cannot say in good conscience that this Resolution represents good value for the ratepayer or that it sets a good precedent from a policy standpoint.
With that, I will be voting no on the proposed Resolution.

Dated March 22, 2012.

/s/ MARK J. FERRON
Mark J. Ferron
Commissioner