

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ENERGY DIVISION

RESOLUTION E-4054
February 15, 2007

R E S O L U T I O N

Resolution E-4054. Pacific Gas & Electric (PG&E) requests approval of increase in capital cost and resulting revenue requirement for Contra Costa 8. This request is conditionally approved as discussed in the body of this Resolution.

By Advice Letter (AL) 2928-E Filed on November 8, 2006.

SUMMARY

This Resolution conditionally approves PG&E's request for approval of an increase of \$75.5 million in the capital costs and resulting revenue requirement increase of \$13.2 million for Contra Costa 8 (CC8).¹ Approval of this request is conditioned upon PG&E obtaining a final CEC license to construct and operate the CC8 facility.

The protest of the Division of Ratepayer Advocates (DRA) is granted in part, as discussed below.

The protest of Merced Irrigation District (Merced ID) and Modesto Irrigation District (Modesto ID) (collectively, the Districts) is denied, as discussed below.

¹ In its response, dated December 5, 2006, PG&E stated that on November 30, 2006 it completed the acquisition of CC8 from Mirant, and that the facility will be renamed the Gateway Generating Station. For continuity here, it will continue to be referred to as CC8.

BACKGROUND

PG&E filed AL 2928-E for review and approval of a request to increase by \$75.5 million the reasonable and prudent estimate of the initial capital cost of completing CC8 for commercial operation and the associated dollar thresholds in Sections 4.1, 4.2 and 4.3 of Attachment A to Decision (“D.”) 06-06-035. PG&E is requesting this increase in order to convert the facility from fresh water cooling to dry cooling, as necessitated by changes in the project’s permitting environment. PG&E also requests authorization to increase the resulting revenue requirement by \$13.2 million.

In D.06-06-035, issued June 15, 2006, the Commission approved PG&E’s acquisition of CC8 via an Asset Transfer Agreement (ATA) between Mirant Delta LLC and Mirant Special Procurement (Mirant) and PG&E. The decision also adopted \$295 million as the reasonable and prudent estimate of the initial capital cost of completing CC8. This cost of completion was developed based on Mirant’s original design and permits obtained for CC8, which included the use of fresh water from the San Joaquin River for cooling.

The original ATA with Mirant assigned permitting duties and responsibilities to Mirant, including securing a final California Energy Commission (CEC) license to construct and operate the facility. The ATA also stipulated that all biological issues associated with constructing and operating the facility must be resolved with the appropriate federal and state resources agencies. The CEC license obtained in 2001 included a biological section with conditions which required the federal and state resource agencies’ approval for mitigation and monitoring plans related to marine impacts of CC8, as well as the existing Contra Costa units 6 and 7. Mirant will continue to own and operate units 6 and 7.

Since the CEC issued the license in 2001, state agencies have intensified their focus on a number of larger Delta habitat issues including the Delta smelt habitat decline, the salmon and steelhead populations and overall water quality. Earlier this year, the State Lands Commission evaluated the water quality and marine life impact issues. Since May of 2006, the State Water Resources Control Board has been examining further regulation and water use reduction of all power plants in California which rely on the Delta and Pacific Ocean water to operate.

Further, the Ocean Protection Council passed a resolution in 2006 to study the impacts of power plants on the marine environment.

After significant review and consultation, and after researching and analyzing the changes in various permitting requirements, PG&E determined a need to clarify next steps with the CEC. In May 2006, PG&E and Mirant representatives met with CEC commissioners and senior staff to determine the feasibility of resolving the biological issues in a timeframe which would allow for successful construction and operation of CC8 by 2009. After these meetings, it was apparent that the use of fresh water for once-through cooling was contrary to both current CEC policy and the goals of the State's Energy Action Plan. The CEC Commissioners, siting division staff and siting committee only allowed progress on the CEC license with the condition that alternatives to the use of fresh water for cooling would be pursued by PG&E. In a July 19, 2006 order amending its prior decision in order to add PG&E as an owner of CC8, the CEC adopted the following staff recommendations:

- "1) PG&E and Mirant will obtain Energy Commission approval of an amendment reflecting a new mitigation program which mitigates the cooling system impacts to a less than significant level and is acceptable to the federal and state resource agencies and obtain all required permits prior to the start of operation. (The previously drafted Biological Opinions from the USFWS and the National Marine Fisheries Service would not satisfy this requirement.)
- 2) If such a mitigation program is not developed and/or the federal permits are not obtained prior to the start of operation, PG&E and Mirant will obtain approval of an amendment switching to an alternative cooling method (such as reclaimed water) prior to beginning operation.
- 3) Until the resource agency permits are obtained, Unit 8 will be designed and constructed in such a manner that will not preclude the switch to an alternative cooling technology."

PG&E states that, in order to stay on schedule to have the facility online in the 2008-2009 timeframe when it is needed, alternatives to using water from the Delta for plant operation must be pursued.

PG&E investigated permitting, construction, and operational costs as well as schedule delays and risks of using either reclaimed water or dry cooling as an alternative to the use of fresh water. Neither of these alternative cooling methods would rely on the use of river water. After a thorough investigation, PG&E determined that changing the plant's design to incorporate dry cooling is the preferred option. Dry cooling uses air-cooled radiators to minimize the plant's use of water.

In addition to eliminating the use of river water for cooling, the change to dry cooling will provide additional environmental benefits:

- Approximately 97% less water is used.
- The visual plume of an evaporative cooling tower is eliminated.
- PM10 air emissions associated with cooling tower drift are eliminated.
- Chemical additives are not needed to treat cooling water.

NOTICE

Notice of AL 2928-E was made by publication in the Commission's Daily Calendar. PG&E states that a copy of the Advice Letter was mailed and distributed in accordance with Section III-G of General Order 96-A.

PROTESTS

AL 2928-E was timely protested by DRA and by the Districts on November 28, 2006. PG&E responded to the protests on December 5, 2006.

DRA states that, in the Advice Letter, PG&E has failed to provide any evidence of CEC approval of an amendment that requires switching to an alternative cooling method at this time. Therefore, DRA believes that PG&E's request to increase the reasonable and prudent initial capital cost estimate of CC8 by \$75.5 million is premature. DRA argues that the Commission should reject PG&E's Advice Letter request because it fails to comply with the conditions as set forth in Section 6 of the Settlement Agreement adopted by D.06-06-035. DRA further states that the Commission should only approve the Advice Letter request

contingent on PG&E's actually implementing dry cooling at CC8 pursuant to PG&E obtaining such approvals.

According to the Districts, the Commission should order that PG&E may not recover any uneconomic portion of the increased capital cost of \$75.5 million from any customers, whether bundled, direct access, or departing load. The Districts further state that if the Commission declines to so order, then rather than approve the increase requested by PG&E pursuant to Paragraph 6 of the Settlement Agreement, the Commission should treat this as a request for an increase under Section 4.3 of the Settlement Agreement, which would result in after-the-fact reasonableness review of about \$29.5 million of the \$75.5 million capital cost increase.

The Districts are concerned as to what effects a decision authorizing PG&E to proceed with its acquisition and completion of CC8 will have upon customers. The Districts state that they do not know whether this 25% increase will automatically transform the project from economic to uneconomic, but it does elevate the risk that the plant may someday become uneconomic.

The Districts argue that if PG&E is going to be allowed a \$75.5 million capital cost increase based on a brief advice letter that is sorely lacking in any facts to support the claim that the capital cost increase is "reasonable and prudent," then PG&E should have to take some risk along with receiving that increase. They believe this is especially so since PG&E appears to have known of the issue leading to this increase before the Commission issued D.06-06-035, but, according to the Districts, did not bring it to the attention of the Commission or parties.²

The Districts argue that an appropriate risk allocation would be to deny PG&E any recovery for uneconomic costs to the extent of the \$75.5 million dollar increase, should the plant ever become uneconomic. Thus, PG&E could not obtain any uneconomic cost recovery for the increased capital cost of \$75.5 million from any customer. According to the Districts, this is an appropriate

² See, Protest of Merced Irrigation District and Modesto Irrigation District to PG&E Advice Letter 2928-E. pp 2 - 3.

result especially because neither the parties nor the Commission have had any opportunity to examine the costs for reasonableness and prudence.

The Districts urge the Commission to follow their recommendation above. However, if the Commission does not do so, then the Districts suggest the Commission address PG&E's request under Section 4.3 of the Settlement Agreement, rather than under Section 6 as requested by PG&E.

The Districts believe that the Commission cannot adopt PG&E's request as presented in the AL because PG&E fails to demonstrate that its proposed increases in capital cost and revenue requirement are just and reasonable.

Instead, the Districts suggest the Commission examine PG&E's request as if it were made under Section 4.3 of the Settlement Agreement. Under the currently-existing threshold set in Section 4.3, the \$75.5 million dollar capital cost increase requested by PG&E would be treated as follows: The \$75.5 million would be added to \$295 million to yield an initial capital cost of \$370.5 million. PG&E would be entitled to include in rate base and recover through rates \$341 million (\$305 million plus \$36 million). However, the remaining \$29.5 million would be subject to an after-the-fact reasonableness review. If it were found to be just and reasonable, PG&E could, after such a review, include that sum in rate base and recover it through rates. If it or any portion of it were not found to be just and reasonable, recovery would be limited or perhaps denied.³

The Districts suggest this is an appropriate result for three reasons. First, according to the Districts PG&E has not shown that its increases in the estimates for the capital cost and annual revenue requirement of the CC8 project are actually "reasonable and prudent." The Districts believe that this solution allows later reasonableness review of not quite 40% of the extra cost while permitting the other 60% to be recovered without reasonableness review.

Second, according to the Districts, it provides a degree of protection to those concerned about a future nonbypassable charge (NBC) due to CC8 becoming uneconomic, again by reserving for reasonableness review about 40% of the new

³ For a more detailed explanation of the threshold amounts refer to Section 4.3 of Attachment A of D.06-06-035.

cost. This approach would allow parties interested in the NBC issues to challenge a portion of the costs if they chose at a later date.

Third, this approach provides incentive to PG&E to complete the CC8 project at a cost that is truly just and reasonable. It allows PG&E to proceed with plant completion, without hearings to assess the reasonableness of the cost increase, while subjecting to reasonableness review only 8% of the total new plant cost estimate. The Districts conclude that, putting roughly 8% of the cost increase at risk will provide PG&E with a strong incentive to spend and work wisely and, if done so, it seems unlikely that any of the 8% would actually be at risk.

In its response, PG&E notes that neither of the protesting parties opposes the completion of CC8 as a dry cooled facility. PG&E argues that the issues raised could affect customer reliability and cost, to the extent that granting the relief requested by protesting parties could lead to delays in completion of the facility. PG&E argues that it is important for the Commission to dismiss these protests without further proceedings and endorse the completion of CC8 as a dry-cooled facility with a greatly reduced impact on fresh water consumption.

PG&E states that D.06-06-035 (and the approved Settlement Agreement) is clear that further modifications to the CC8 design - and potential increases to the resulting costs - might be required due to other agency actions. The settling parties dealt in good faith with this possibility in Sections 5 and 6 to the Settlement Agreement. PG&E points to a July 19, 2006 CEC order which approved the addition of PG&E on the license but also imposed additional requirements related to cooling.

PG&E notes that the Settling Parties were fully aware, and made the Commission aware, that other regulatory agencies might modify CC8's environmental permits in a way which could lead to an increase in costs either because of a change in design or delay in construction. This has been the case with the recent restrictions on the use of fresh water for cooling. PG&E states that it has determined that dry cooling is the least cost alternative cooling technology and poses the least risk of delay. PG&E states that it worked to keep the Commission fully informed of possible changes in plant design and the resultant additional project costs.

PG&E believes that there is no need for further hearings, and it would be wholly inappropriate to revise the Settlement Agreement to provide either for more

review of the project, less cost recovery, or less recovery of that cost from any class of customers. PG&E believes that it has provided compelling evidence to the Commission's Energy Division that dry cooling is the most reasonable and cost-effective way to proceed with the completion of Contra Costa 8.

In addressing DRA's concerns, PG&E states that while the Energy Commission has not directly ordered the project to use dry cooling technology, it has clearly ordered alternative cooling technology in the absence of resource agency permits which are either unobtainable or unobtainable in time to support PG&E's resource needs. Therefore, PG&E asserts that dry cooling and reclaimed water are the only alternative cooling technologies. PG&E believes that dry cooling is the least cost and lowest risk approach.

PG&E believes that making this choice now enables it to have CC8 on-line in early 2009. PG&E further argues that not making this choice now, and continuing to explore fresh water alternatives that satisfy USFWS and National Marine Fisheries Service Biological Opinions, has no chance of succeeding and will result in a more expensive facility and a delayed online date.

DISCUSSION

We acknowledge the fact that neither of the protesting parties opposes the completion of CC8 as a dry cooled facility. We further acknowledge that, given state policy preference, the design of this facility is either modified to allow for dry cooling (or reclaimed water) or it does not get built. In addition, given California's recent experiences this past summer, we believe that not constructing this unit could have significant adverse reliability and cost implications.

D.06-06-035, and the approved Settlement Agreement, are clear that further modifications to the CC8 design might be required due to other agency actions and that this might lead to potential increases in costs. At the time the Settlement was reached it was known that modifications to the plant's design might be necessary – as explicitly acknowledged in the Settlement Agreement itself – but the extent of the changes could not possibly be known. PG&E is now presenting those changes to the Commission for approval.

On November 9, 2006, the Energy Division issued a data request to PG&E concerning the magnitude of PG&E's \$75.5 million increase in capital cost

request, citing an Energy Commission April 2006 Report which states that dry cooling has an "Increased plant capital cost of approximately \$8 million to \$27 million."⁴ In the data request the Energy Division asked for a reconciliation of the capital cost difference. PG&E supplied the requested information and Energy Division released the response to the Service List in A.05-06-029. PG&E explained that the difference in cost estimates can be explained by plant size (capacity) and vintage, among other things.⁵ No party commented on or protested PG&E's explanation of the differences in its estimate and the CEC's estimate. The information presented in response to Energy Division's data request provided the Commission with additional information needed to assist in the determination of the reasonableness of PG&E's cost estimate. Based on this additional information, the estimates provided by PG&E of \$75.5 million to convert CC8 to dry cooling appear reasonable and we hereby deny the protest of the Districts on this issue.

Given our determination that PG&E's estimate of \$75.5 million is reasonable we now turn our attention to the Districts protest regarding the appropriate treatment of this cost increase.

D.06-06-035 adopted \$295 million as the reasonable and prudent estimate of the initial capital cost of completing CC8. This cost of completion was developed based on Mirant's original design and permits obtained for CC8, which included the use of fresh water from the San Joaquin River for cooling. However, since the Commission's approval of the Settlement Agreement there has been a change in permitting requirements necessitated by the State's policy preference to move away from facilities that rely on fresh water. These changes materially affect CC8's initial design and construction estimates. Therefore, it is necessary for PG&E to revise upward its reasonable and prudent estimate of the initial capital cost of completing CC8.

⁴ (CEC-500-2006-034)

⁵ For example, cost estimates included in the CEC report are in 2002 dollars, and CC8's Air Cooled Condenser (ACC) is sized for a larger steam turbine with duct firing. Both of these differences lead to a difference in cost estimates.

In addition, the ATA stipulated that all biological issues associated with constructing and operating the facility must be resolved with the appropriate federal and state resources agencies. The CEC license obtained in 2001 included a biological section with conditions which required the federal and state resource agencies' approval for mitigation and monitoring plans related to marine impacts of CC8. PG&E has convincingly argued that the optimal method for resolving many of the biological issued at the facility is through the use of dry cooling.

Further, we find that D.06-06-035, and the approved Settlement Agreement, allowed for the changes similar to those noted above by stating that further modifications to the CC8 design might be required due to other agency actions and that this might lead to potential increases in costs.

Specifically, Section 6 of the Settlement Agreements states, "...PG&E is authorized to increase the reasonable and prudent estimate and the associated dollar thresholds in Sections 4.1, 4.2 and 4.3, and the revenue requirement, if the costs associated with CC8 are increased as a result of any material changes to the project that are required to implement or comply with any permits, approvals, or conditions thereof, or the issuance of any order, judgment, award, or decree which affects the project."

In its protest, DRA states that PG&E has failed to provide any evidence of CEC approval of an amendment that requires switching to an alternative cooling method at this time. Therefore, DRA believes that PG&E's request to increase the reasonable and prudent initial capital cost estimate of CC8 by \$75.5 million is premature. DRA further states that the Commission should only approve the AL request contingent on PG&E actually implementing dry cooling at CC8 and obtaining the appropriate approvals. We agree with DRA in part. We agree that PG&E has not shown anywhere in its request that the CEC has given final approval of an amendment requiring the Company to switch to dry cooling. However, as noted above, given state policy preference, it is abundantly clear that the facility will not be able to operate if it continues to be constructed in a manner that requires the use of fresh water for cooling.

As noted earlier, no party protests the completion of CC8 as a dry cooled facility. Additionally, we realize that further delay in the construction and operation of CC8 could have adverse reliability impacts in the near future. Therefore, we conclude that it is reasonable to conditionally grant PG&E's request to increase

the reasonable and prudent estimate of the initial capital costs of this facility. At the time this AL was filed, construction had not begun on CC8; therefore, we find it reasonable to consider PG&E's request as a request to increase the initial capital costs of the project. Based on this aspect we find it reasonable to include the additional cost of construction in the initial capital cost of completing CC8 for commercial operation.⁶ We approve PG&E's request contingent upon PG&E obtaining the appropriate permitting approvals in order to implement dry cooling at CC8. We urge PG&E to work expeditiously with the CEC and other relevant permitting agencies in order to obtain the necessary approvals as quickly as possible.

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 nor reduced. Accordingly, this draft resolution was mailed to parties for comment. The Districts submitted comments on February 5, 2007.⁷ We have made certain modifications to the Draft Resolution to better explain our Order.

⁶ Along with the associated dollar thresholds in Section 4.1, 4.2, and 4.3 of the Settlement Agreement.

⁷ The Districts filed comments on the draft resolution pursuant to permission granted by the Energy Division. The Districts were mistakenly not initially served with a copy of the draft resolution.

FINDINGS

1. Commission Decision 06-06-035, issued June 15, 2006, approved PG&E's acquisition of CC8 via an Asset Transfer Agreement between Mirant and PG&E.
2. Commission Decision 06-06-035 adopted \$295 million as the reasonable and prudent estimate of the initial capital cost of completing CC8.
3. Commission Decision 06-06-035 directed PG&E to file an Advice Letter to seek an increase in the estimate of initial capital costs (\$295 million) and the associated dollar thresholds in Sections 4.1, 4.2 and 4.3, and the revenue requirement, if the costs of CC8 are increased as a result of any material changes to the project that are required to implement or comply with any permits, approvals, or conditions thereof, or the issuance of any order, judgment, award, or decree which affects the project.
4. PG&E filed Advice Letter AL 2928-E on November 8, 2006.
5. Advice Letter 2928-E seeks Commission review and approval of a request to increase by \$75.5 million the reasonable and prudent estimate of the initial capital cost of completing CC8 for commercial operation and the associated dollar thresholds in sections 4.1, 4.2 and 4.3 of Attachment A to D.06-06-035.
6. PG&E requests authorization to increase the resulting revenue requirement by \$13.2 million.
7. PG&E is requesting this increase to convert CC8 from fresh water cooling to dry cooling, as necessitated by changes in the project's permitting environment.
8. As justification for the change, PG&E cites a July 19, 2006 CEC order amending its prior decision in order to add PG&E as an owner of CC8. In that order the CEC adopted the following staff recommendations:
 - 1) PG&E and Mirant will obtain Energy Commission approval of an amendment reflecting a new mitigation program which mitigates the cooling system impacts to a less than significant level and is acceptable to

- the federal and state resource agencies and obtain all required permits prior to the start of operation;
- 2) If such a mitigation program is not developed and/or the federal permits are not obtained prior to the start of operation, PG&E and Mirant will obtain approval of an amendment switching to an alternative cooling method (such as reclaimed water) prior to beginning operation; and
- 3) Until the resource agency permits are obtained, Unit 8 will be designed and constructed in such a manner that will not preclude the switch to an alternative cooling technology.
9. The Commission's Energy Division issued a data request to PG&E on November 9, 2006. In the data request Energy Division asked for reconciliation between the estimate PG&E provided in this AL to implement dry cooling and an estimate of the CEC provided in an April 2006 Report.
 10. PG&E responded to Energy Division's data request on November 23, 2006. Among other things, PG&E states that the differences in cost estimates can be attributed to the capacity and vintage of the project.
 11. DRA timely protested the Advice Letter filing on November 28, 2006. Among other things, DRA states that PG&E's request is premature and the CPUC should only approve this Advice Letter contingent on PG&E actually implementing dry cooling at CC8.
 12. The Districts timely protested the Advice Letter filing on November 28, 2006. Among other things, the Districts request that the Commission order that PG&E may not obtain any uneconomic cost recovery for the increased capital cost of \$75.5 million. In the alternative, the Districts state that if the Commission declines to adopt that suggestion, the Commission should address PG&E's requested capital cost increase under Section 4.3 of the Settlement Agreement rather than Section 6, and require \$29.5 million of the requested increase to undergo after-the-fact reasonableness review.
 13. PG&E responded to protests on December 5, 2006. In response to the Districts, PG&E states that the Settling Parties were fully aware that other regulatory agencies might modify CC8's environmental permits in a way that could lead to an increase in costs, and the settlement includes appropriate measures to address this possibility. In response to DRA, PG&E agrees that

the CEC has not directly ordered the project to use dry cooling, it has clearly ordered alternative cooling technology in the absence of resource agency permits that are unobtainable. PG&E states that dry cooling is the least cost and lowest risk approach to addressing this issue. PGE also notes that neither party protested the completion of CC8 as a dry cooled facility.

14. Energy Division posted PG&E's data request answers to the Service List for A.05-06-029 on December 7, 2006.
15. The additional information gained through PG&E's response to Energy Division's data request shows that \$75.5 million is a reasonable and prudent estimate of the cost to convert CC8 to a dry cooling facility.
16. State Policy preferences against the use of fresh water for power plant cooling necessitate a modification in the original design of CC8.
17. Based on the recent heat storm of summer 2006, forgoing the construction of CC8 could have significant adverse reliability implications.
18. PG&E does not demonstrate in its filing that it has obtained a final CEC order directing that it convert CC8 to a dry cooled facility.
19. The protest of DRA is granted in part.
20. The Protest of the Districts is denied.
21. PG&E's request should be conditionally approved pending PG&E obtaining final approval to construct and operate CC8 as a dry cooled facility.
22. PG&E should file an amended Advice Letter seeking final Commission approval within 30 days of obtaining final permits to construct and operate CC8 as a dry cooled facility.

THEREFORE IT IS ORDERED THAT:

1. The request of PG&E to increase by \$75.5 million the reasonable and prudent estimate of the initial capital cost of completing CC8 for commercial operation and the associated dollar thresholds in sections 4.1, 4.2 and 4.3 of Attachment

- A to D.06-06-035, as requested in Advice Letter AL 2928-E, is conditionally approved contingent upon PG&E obtaining final permits to construct and operate CC8 as a dry cooled facility.
2. The request of PG&E to increase the resulting revenue requirement by \$13.2 million, as requested in Advice Letter AL 2928-E is conditionally approved contingent upon PG&E obtaining final permits to construct and operate CC8 as a dry cooled facility.
 3. The protest of the Districts is hereby denied. The protest of DRA is granted in part.
 4. Within 30 days of PG&E receiving final CEC permitting approval to construct and operate CC8 as a dry cooled facility, PG&E shall file a supplemental advice letter seeking final Commission approval of the requested increases.

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 February 15, 2007; the following Commissioners voting favorably thereon:

STEVE LARSON
Executive Director

MICHAEL R. PEEVEY
PRESIDENT
DIAN M. GRUENEICH
JOHN A. BOHN
RACHELLE B. CHONG
Commissioners