

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Promote
Policy and Program Coordination and
Integration in Electric Utility Resource
Planning.

R.04-04-003
(Filed April 1, 2004)

**REPLY BRIEF OF THE
UNION OF CONCERNED SCIENTISTS
ON UTILITY LONG-TERM PROCUREMENT PLANS**

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FOR: THE UNION OF CONCERNED
SCIENTISTS

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I. INTRODUCTION AND SUMMARY

In accordance with the September 28, 2004 Ruling of Administrative Law Judge (“ALJ”) Brown, the Union of Concerned Scientists (“UCS”) submits this reply brief. ALJ Brown orally requested that parties be succinct in presenting their reply briefs, and limit their filings to those issues that require particular recognition or clarification, without repeating previously stated positions or arguments. UCS is responding accordingly.

- **The 20% Renewables Portfolio Standard (“RPS”) target is a floor, not a cap, on renewables procurement.** In its opening brief, UCS commended San Diego Gas & Electric Company (“SDG&E”) for its commitment to exceed the 20% RPS target, and the level of detail it has developed in its portfolio to support this commitment. Southern California Edison Company (“SCE”), in its opening brief, has clarified that the 20% RPS target is not a cap on the amount of renewables SCE will include in its generation portfolio.¹ Pacific Gas & Electric Company (“PG&E”), as noted in UCS’ opening brief, has left open the possibility of exceeding 20%,² but has not made a firm commitment.
- **SDG&E’s approach to evaluating renewable resource potential should be used by all three utilities.** UCS has described the “bottoms up” approach needed for inclusion of renewables in the utilities’ resource plans and pointed to SDG&E’s approach as a useful model.³ In their opening briefs, both SCE and PG&E argue that they should not be required to follow the same model as SDG&E for inclusion of more detail on renewables in their procurement plans.⁴

¹ SCE Opening Brief, p. 38.

² UCS Opening Brief, p. 19.

³ *Id.*, pp. 17-18.

⁴ PG&E Opening Brief, p. 39; SCE Opening Brief, pp. 39-40.

PG&E asserts that the approach followed by SDG&E is “too restrictive,” and that the specific renewables in PG&E’s portfolio should be determined by the market, based on attributes defined by PG&E, rather than preordained in a resource plan. PG&E’s position on this issue appears to be driven by its misunderstanding of how it should be developing the renewables component of its long-term plan. The utilities should first determine the cost-effective and technical potential for renewables in the timeframe of their resource plans, and then develop specific plans to ensure those amounts are brought on line – by identifying items including potential transmission lines, other infrastructure, and processes such as requests for offers. Simply having a “placeholder” amount of renewable resources is not the proactive approach that is needed to ensure the renewable goals set forth in the resource plans actually materialize. SDG&E has done this in its plan for renewables; SCE and PG&E have not.

PG&E claims that being “overly prescriptive would negate some of the advantages of buying from the market.”⁵ SCE argues that if it were to express a “preference” for a particular technology type, this would undermine the intent of the legislation authorizing the least-cost/best-fit process for evaluating resources.⁶ PG&E and SCE appear to misunderstand UCS’ position. UCS is not arguing for a “preference,” and is not suggesting the utilities pre-determine the types of renewable resources they will procure over the next ten years. However, the utilities *do* have enough experience with renewables procurement to anticipate and estimate the mix of resources the market provides, as SDG&E has done in its plan. Differences in resource characteristics and locations affect a utility’s ability to plan for and integrate renewables, especially with respect to the development of new transmission

⁵ PG&E Opening Brief, p.40.

⁶ SCE Opening Brief, p. 39.

lines or enhancement of existing lines. Therefore, the utilities need to include specific information in their plans on how they will ensure the development of renewables.

- **The Commission should continue its leadership on efforts to curb greenhouse gas emissions by requiring the utilities to account for greenhouse gas emissions as they procure resources.** The utilities are rightfully proud of the fact that they have joined the California Climate Registry and provided the information on greenhouse gas emissions requested by the Commission in the June 29, 2004 Assigned Commissioner's Ruling.⁷ While these actions are commendable, there is still more that the Commission and utilities can do *now* to reduce their greenhouse gas emissions and combat the adverse effects of climate change. As noted in UCS' opening brief, PG&E is by far ahead of the other utilities on this issue.⁸ PG&E agrees that regulation of greenhouse gas emissions is likely to occur during the 10-year planning horizon,⁹ and thus plans to use a value for carbon emissions in its upcoming procurement.^{10,11} Neither SDG&E nor SCE display this level of sophistication about the strong likelihood that carbon emissions will be regulated and steps that can be taken to mitigate this risk.

SCE argues that there is not sufficient certainty that carbon emissions will be regulated, and that imputing carbon costs at this time will require customers to overpay for electricity.¹² SCE further suggests that because there is a range of costs associated with carbon regulation, no cost should be used.¹³

⁷ SDG&E Opening Brief, pp. 6, 59-60; Exhibit 73, p. 42 (SCE); Exhibit 35-C, pp. 7-1 – 7-3 (PG&E).

⁸ UCS Opening Brief, pp. 9 – 11.

⁹ PG&E Opening Brief, p. 23.

¹⁰ Reporter's Transcript, 9/3/04, pp. 774-775 (PG&E/Strauss).

¹¹ UCS Opening Brief, p. 12.

¹² SCE Opening Brief, p. 122.

¹³ *Id.*, p. 123.

SDG&E poses similar objections to any requirement for carbon modeling, arguing that the electric generation sector should not be singled out,¹⁴ and that modeling the effects of carbon regulation on a utility portfolio will hurt efforts to stabilize California's electric market.¹⁵

SCE and SDG&E are turning a blind eye to the reality that carbon regulation is increasingly certain. During the pendency of these briefs, Russia has agreed to abide by the Kyoto protocols, which will bolster the carbon trading market in Europe and place additional pressure on the U.S. to reduce its greenhouse gas emissions.¹⁶ The agreement of both PG&E and The Utility Reform Network ("TURN")¹⁷ with UCS on the need to account for carbon emissions in utility resource plans is evidence that such accounting is beneficial to ratepayers, arguments from SCE and SDG&E notwithstanding. The Commission has an unparalleled opportunity to further lead the nation in confronting climate change, and should do so by requiring the utilities to (1) estimate the risks from carbon emissions in updates to their long-term plans to be filed in January 2005 and (2) incorporate carbon emission valuation in future procurements.

SCE suggests that imputing a cost of carbon will cause customers to pay higher electric rates.¹⁸ SCE explores the example given by the Natural Resources Defense Council ("NRDC") of purchasing renewable energy instead of fossil-fueled energy at a potentially lower cost, while ignoring the long-term impact of carbon emission prices on overall consumer costs for fossil-fueled resources. The long-term resources envisioned by the

¹⁴ SDG&E Opening Brief, p. 59.

¹⁵ *Id.*, p. 61.

¹⁶ See, for example, "Welcome to Kyoto-land," *The Economist*, October 7, 2004; "Industry Energized by Kyoto Pact," *Los Angeles Times*, October 10, 2004.

¹⁷ TURN Opening Brief, pp. 19, 23.

¹⁸ SCE Opening Brief, pp. 120-121.

utilities in their plans pose greater long-term risk as carbon emissions from those resources increase. Both UCS and NRDC have provided evidence on the benefits renewables provide in hedging against that risk.¹⁹

- **The utilities should be required to model a range of gas price forecasts.** No utility argued against UCS' proposal in its opening testimony that they be required to resubmit their plans using a range of gas prices. Instead, the utilities' opening briefs have focused on the utilities' claims that the prices they presented in their plans were reasonable.²⁰ Other parties (e.g., CLECA/CMTA, Strategic Energy/Constellation New Energy) summarize evidence in the record calling into question the reasonableness of those forecasts.²¹ Because gas price forecasting is subject to a wide range of assumptions, UCS strongly urges the Commission to direct the utilities to include sensitivity analyses on a range of gas price forecasts in a January 2005 resource plan supplement.
- **Debt equivalence.** Not unexpectedly, SCE, PG&E, and SDG&E all continue to argue for Commission adoption of their debt equivalency recommendation in their opening briefs. UCS's opening brief anticipated these arguments and addressed their claims. For example, SCE claims that renewables add risk because they are smaller and less reliable.²² As UCS has pointed out, the Commission should consider not only the high likelihood that the utilities will recover the costs of renewable contracts, but also the positive hedge factors of long-term renewable contracts relative to traditional generation, including greater fuel diversity,

¹⁹ Exh. 54, p. 5, pp. 38-39; Exh. 58, p. 56

²⁰ SDG&E Opening Brief, pp. 13-15; SCE Opening Brief, pp. 13-14; PG&E Opening Brief, pp. 15-16.

²¹ CLECA/CMTA Opening Brief, pp. 3-5; Strategic Energy/Constellation New Energy Opening Brief, pp. 9-10.

²² SCE Opening Brief, p. 88.

protection against future environmental regulation risks, and protection against fluctuation in the gas markets.²³

The utilities defend the Standard & Poor's methodology for calculating debt equivalence, despite evidence that the three major credit rating agencies take different approaches to assessing debt equivalency, including quantitative and qualitative factors, and that Standard & Poor's places different emphasis on the effect of one quantitative factor of several – the effect of renewable contracts – than Moody's or Fitch.²⁴ UCS is joined by the cogenerators and Calpine in arguing that debt equivalence historically has not had an adverse impact on utility credit ratings.²⁵

SDG&E and SCE criticize UCS' recommendation that renewable contracts should have a lower debt equivalence factor than conventional generation.²⁶ UCS' opening brief anticipates this argument: “By recognizing the positive hedge factors of renewable contracts and adopting a lower debt equivalency factor for renewable resources, the Commission will be sending a strong message to the credit ratings agencies about the risks and benefits of renewable contracts. The Commission should adopt a debt equivalency factor for long-term renewable contracts in California that is lower than for non-renewable contracts, at 5 percent of the net present value of capacity payment obligations.”²⁷

- **Transmission planning is important to bringing more renewable resources online.** Many parties join UCS in recognizing the importance of improved transmission planning and construction of new transmission lines.²⁸ While SDG&E is actively linking the need for

²³ UCS Opening Brief, p. 23.

²⁴ *Id.*, pp. 21-23.

²⁵ Cogeneration Association of California Opening Brief, p. 14; California Cogeneration Council, Opening Brief, p. 25; Calpine Opening Brief, pp. 6-8.

²⁶ SDG&E Opening Brief, pp. 94, 95; SCE Opening Brief, pp. 87-88.

²⁷ UCS Opening Brief, p. 24.

²⁸ See, for example, UCS Opening Brief pp. 4-8; SDG&E Opening Brief, p. 42; California Independent System

planning and development of transmission resources in order to bring all resources – including renewables – online, it is not clear that SCE and PG&E have taken a similar approach to transmission planning. SCE discusses some efforts it has made at transmission planning; in particular SCE’s intent to file a Tehachapi transmission plan in December 2004.²⁹ However, SCE appears to misunderstand the process that should be driving its transmission and renewables planning. SCE states:

“The deliverability of resources from other control areas...may also be problematic for new renewables. This analysis only assumes RPS targets would be met and that any potential deliverability issues would be resolved by new transmission or by other means or the contracts would not proceed. SCE believes that transmission and deliverability issues should be considered during the individual RFP solicitations in the economic evaluation of the individual bids...”³⁰

SCE is *not* performing bottoms-up resource planning. SCE should be first identifying the full potential for renewable resources, even beyond the 20% RPS target, then identifying new lines and/or upgrades needed to accommodate this potential.³¹ SCE’s statement demonstrates the critical need for transmission access in bringing new renewable resources online, and the barrier to meeting the goals of the RPS program that inadequate transmission access will impose.

PG&E claims that it has “analyzed its renewable transmission requirements and started the planning process,” and incorporated that information into its July 2004 renewables solicitation.³² PG&E’s Transmission Ranking Cost Report (“TRCR”) included in its solicitation does identify a range of potential transmission upgrades in PG&E’s service area, and is a necessary step toward developing a comprehensive transmission plan. But the

Operator Opening Brief, pp. 2-3; Center for Energy Efficiency and Renewable Technologies Opening Brief, pp. 11-14; Western Power Trading Forum Opening Brief, p. 3.

²⁹ SCE Opening Brief, p. 42.

³⁰ SCE Opening Brief, footnote 184, pp. 47-48.

³¹ UCS Opening Brief, pp. 5-6.

³² PG&E Opening Brief, p. 42.

TRCR is not a transmission planning document; if it were, the utilities would have folded their respective TRCRs into their long-term plans. The purpose of the TRCR is to provide bidders in a utility's RPS solicitation with information regarding potential transmission cost adders to be applied in evaluating their bids in the least-cost and best-fit process.³³ A renewables transmission plan should provide scenarios of potential transmission upgrades to access the cost-effective renewable resource potential identified in the long-term plan; the TRCR does not provide this level of detail.

Additionally, while PG&E claimed during hearings and reiterated in its brief that it can meet its RPS target with no new transmission,³⁴ PG&E's actual resource plan includes no such assertion, much less clear information supporting such a claim.

In conclusion, the opening briefs confirm UCS' recommendation that the Commission should require the utilities to file supplements to their July 2004 long-term plans in January 2005. These supplements should model the impacts of carbon regulation, as well as gas price risk, on the resource plans, as discussed in UCS' opening brief and above. The utilities also should provide a more detailed annual analysis of renewable resource potential, as SDG&E has done, update renewables-specific procurement plans for 2005 consistent with the RPS program, adopt a debt equivalency factor that is lower for renewable contracts than for non-renewable contracts, and incorporate the energy efficiency goals adopted by the Commission in D.04-09-060, which all the utilities have indicated they intend to do.

³³ Process adopted in D.04-06-013 and D.04-07-029. See, in particular, D.04-06-013, Attachment A.

³⁴ PG&E Opening Brief, p. 20.

Respectfully submitted,

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Dated: November 1, 2004

CERTIFICATE OF SERVICE

I, Jack McGowan, certify that I have, on this date, caused the foregoing Reply Brief Of The Union Of Concerned Scientists On Utility Long-Term Procurement Plans to be served by electronic mail, or for any party for which an electronic mail address has not been provided, by U.S. Mail on the parties listed on the Service List for the proceeding in California Public Utilities Commission Docket No. R.04-04-003.

I declare under penalty of perjury, pursuant to the laws of the State of California, that the foregoing is true and correct.

Executed on November 1, 2004, at San Francisco, California.

Jack McGowan