

Decision 07-05-029 May 3, 2007

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company (U 39-E), for Approval of Demand Response Agreements.

Application 07-02-032
(Filed February 28, 2007)

Southern California Edison Company's (U 228-E) Application for Approval of a Demand Response Resource Purchase Agreement for 2007 and 2008.

Application 07-02-033
(Filed February 28, 2007)

ORDER APPROVING THE APPLICATIONS OF PACIFIC GAS AND ELECTRIC COMPANY AND SOUTHERN CALIFORNIA EDISON COMPANY FOR APPROVAL OF DEMAND RESPONSE AGREEMENTS

This decision approves the applications of Pacific Gas and Electric Company (PG&E) and Southern California Edison Company (SCE). PG&E seeks authority to enter into five-year agreements with demand response aggregators that would provide between 35 megawatts (MW) and 46 MW of demand response by August 2007, between 107 MW and 129 MW by August 2008, and between 132 MW and 149 MW in 2009 to 2011. SCE seeks authority to enter into a two-year agreement with a demand response aggregator, lasting from 2007 until 2008 that would provide up to 40 MW of demand response capacity by June 2008.

Background

The Commission has stated its commitment to demand response as a vital energy resource in California. It has directed regulated energy utilities to

develop innovative and effective demand response programs, whereby customers would reduce their demand during periods of system strain. Demand response is an energy resource that, like energy efficiency, is environmentally sound and imposes few costs on the system from the standpoint of resource use. D.06-11-049 most recently adopted a number of demand response programs for SCE and PG&E following a heat storm in 2006 and in anticipation of increased reliance on demand response in 2007 and beyond.

In addition to augmenting existing demand response programs, D.06-11-049 directed SCE and PG&E to solicit bids for agreements under which third parties would procure demand response. Both utilities conducted those solicitations and filed these applications seeking approval of contracts signed with winning sellers. The applications seek expedited, ex parte approval of the agreements so that the associated demand response resources would be available in time for summer 2007.

The Division of Ratepayer Advocates (DRA), The Utility Reform Network (TURN) and EnerNOC filed comments on the applications. DRA opposes the agreements, raising concerns about some of the terms of the agreements and questioning whether the capacity is required. TURN raises a concern about the allocation of associated costs and related accounting. As one of the contracting parties, EnerNOC stated its support for the applications.

The Commission conducted a prehearing conference (PHC) in these consolidated matters on April 4, 2007. At the PHC, the assigned Administrative Law Judge (ALJ) asked a number of questions about the need for the capacity and the cost-effectiveness of the contracts. The applicant utilities agreed to file additional information and other parties were provided an opportunity to file

additional comments. DRA, Alternative Energy Resources (AER) and EnerNOC filed comments addressing the additional information SCE and PG&E provided.

No party objected to the ALJ's proposal to shorten the time for publication of and comment on the ALJ's proposed decision, which would normally be 30 days pursuant to Section 311(g).

Summary of Agreements

PG&E and SCE filed these applications seeking approval of agreements that would provide demand response resources for the coming summer season and beyond. Each agreement is with a demand response aggregator that would procure demand response resources by working with electric customers in each utility's service territory. The aggregator would be responsible for meeting the commitments in the agreements.

PG&E

PG&E has executed five agreements for aggregated demand response portfolios with five different demand response providers. PG&E's agreements would provide between 35 MW and 46 MW of demand response by August 2007, between 107 MW and 129 MW by August 2008, and between 132 MW and 149 MW in 2009 through 2011. The agreements are with AER, Ancillary Services Coalition, Energy Connect, Energy Curtailment Specialists, and EnerNOC (Sellers). The agreements require the Sellers to provide up to 50 hours of demand reduction during the months of May through October for each year of the contracts, beginning August 2007. The contracts are for five years – 2007 to 2011.

Each Seller will aggregate a group of electric customers in PG&E's service area, potentially including bundled customers, direct access customers, and Community Choice Aggregation customers.

PG&E may dispatch each contract at the utility's sole discretion, and is not limited to calling the contracts during California Independent System Operator (CAISO) alerts. The Sellers must make the load reductions available between 11:00 a.m. and 7:00 p.m. on regular business days. Four agreements can be dispatched on the day of an event with between 30 minutes and two hours notice depending on the contract. The fifth can be dispatched on a day-ahead basis, no later than 3:00 p.m.

The structure of the contracts is similar to the Capacity Bidding Program (CBP). Each agreement specifies a commitment level in terms of megawatt reductions. Each Seller receives a capacity payment, specified on a per kilowatt-year basis, for the committed load. A Seller receives the capacity payment whether or not the program is called. When the program is called, the Seller receives an energy payment for reductions up to the commitment level. The amount of the energy payment is specified in each agreement.

If a Seller does not provide its full commitment level when requested, the Seller is required to reimburse PG&E for the difference between the cost of replacement energy and the contract energy price. Furthermore, the capacity payment will be reduced for non-performance. PG&E can terminate any agreement in the event that a Seller reduces its load by less than fifty percent of the commitment level upon three separate dispatch requests.

The agreements provide that if a Commission decision is not received by May 3, 2007, the Sellers may reduce their commitment levels for 2007.

PG&E states that the RFP was specifically designed to obtain demand response that can be counted toward resource adequacy requirements as adopted in D.04-10-035 and confirmed in D.05-10-042. PG&E requests that the Commission confirm that the agreements count toward resource adequacy.

PG&E asks for authority to recover costs associated with the agreements in the Energy Resource Recovery Account (ERRA), which the Commission permitted for a demand response agreement between PG&E and the Department of Water Resources in Resolution E-4062.

SCE

SCE seeks approval of a single agreement with EnerNOC to provide demand response in 2007 and 2008. SCE is continuing to negotiate with other potential counterparties and will seek Commission approval for any additional executed demand response agreements.

The agreement would provide up to 40 MW of demand response capacity by June 2008 that could be dispatched within 30 minutes. The resource would be available year-round, not just in the summer months, and for up-to 70 hours per year. The contract can be called in emergencies and when the wholesale market price is expected to exceed the contract energy price.¹

SCE characterizes the agreement as similar to its CBP for aggregators. Monthly load reduction nominations are fixed and payment is made whether or not the load is dispatched. The agreement provides an energy payment as well for energy reduced during dispatch. The agreement provides penalties for non-performance and includes requirements for creditworthiness.

The agreement terminates if it does not receive Commission approval by June 30, 2007.

¹ SCE Testimony at 4-5 (February 28, 2007) and SCE Supplementary Testimony at 3 (April 9, 2007).

SCE filed the contract with its application as Confidential Appendix A. The summary of contract terms and requested budget are redacted in the public version of the application.² SCE requests that the Commission approve its proposed administrative budget—\$175,000 in 2007 and \$225,000 in 2008—and authorize SCE to include the contract in its 2006 to 2008 demand response portfolio.

SCE asks the Commission to find that the demand reduction achieved by the agreement during its term count toward the fulfillment of program portfolio goals to the extent the Commission adopts such goals.

SCE would fund the program using existing demand response budget amounts. SCE does not specify which existing demand response program budgets would be reduced to pay for the subject agreement.

Comments

PG&E

PG&E recommends that the Commission approve the contracts for several reasons. First, the contracts are consistent with Commission directives including Commissioner Peevey's ACR issued on August 9, 2006 and D.06-11-049, and the Commission's preferred loading order as adopted in the Energy Action Plan II.³ Second, PG&E's competitive bidding process has produced the least cost, most reliable, demand response available in the market.⁴ Third, the agreements contain terms that are enhancements over PG&E's tariffed programs, including

² A.07-02-033 at 5-6.

³ PG&E Reply at 2-3 (March 30, 2007).

⁴ Id. at 8.

unlimited call rights, firm commitment levels, strict performance requirements backed by penalties, and five-year terms.⁵ PG&E believes that performance requirements, termination damages, and significant posted collateral will lead to reliably delivered capacity.⁶

In response to a request from the ALJ regarding the need for these agreements in 2007, PG&E's witness Perlstein cites analysis performed by the utility for its Long-Term Procurement Plan, which shows a need for additional resources to meet peak demand in 2007 if the Commission adopts the planning standard proposed by PG&E in that proceeding.⁷ Perlstein also points to the possibility of emergencies as shown in the CAISO's analysis of expected loads and available resources during the summer of 2007.⁸ The CAISO estimates a 16% chance of entering a Stage 1 emergency, a 7.6% chance of entering a Stage 2 emergency, and a 3.5% chance of triggering a Stage 3 emergency. A Stage 3 emergency requires involuntary load interruptions. Perlstein states that these agreements would reduce the likelihood of CAISO emergencies and that there is no longer sufficient time to add new generation resources for the summer of 2007.⁹

⁵ Id. at 4.

⁶ PG&E Prepared Testimony at 3-8 (February 28, 2007).

⁷ PG&E Supplemental Testimony at 6-2 (April 6, 2007).

⁸ CAISO, 2007 Summer Loads and Resource Operations Assessment (March 8, 2007).

⁹ PG&E Supplemental Testimony at 6-3 (April 6, 2007).

SCE

SCE recommends that the Commission approve its agreement because it will add firm dispatchable capacity to SCE's demand response portfolio and is consistent with the objectives articulated by the Commission in D.06-11-049. Several elements of the contract are similar to the CBP, previously approved by the Commission.¹⁰ Additional value is provided by the fast dispatch time in the contract – 30-minutes – versus the approximate three hour dispatch time for the CBP. The firm commitment in the contract is also more valuable than the month-to-month commitments under the CBP.¹¹

SCE states that the contract is needed to meet the Commission's demand response goals. SCE does not need additional resources in 2007 for resource adequacy needs, but has a modest need for supply in 2008 to meet the year-ahead resource adequacy requirements. However, SCE argues that the Commission's preference for environmentally friendly alternatives to meet peak demand overrides the resource adequacy considerations. SCE notes that since the July 2006 heat storm, the Commission has directed the utility to expand its Air Conditioning Cycling Program by 225 MW, implement the CBP, and expand other demand response programs.¹² The actual results of these efforts will not be known until the summer arrives. These agreements provide a firm resource that will be available by July 2007.¹³

¹⁰ Resolution E-4020 and Resolution E-4059.

¹¹ SCE Volume 1-Testimony at 8 (February 28, 2007).

¹² Resolution E-4028 and D.06-11-049.

¹³ SCE Supplementary Testimony at 5 (April 9, 2007).

DRA

DRA recommends that the Commission reject PG&E's and SCE's proposed agreements.¹⁴ DRA characterizes the contracts as expensive insurance policies since there is a very low probability that the 2006 heat storm will reoccur in 2007 and reserve margins appear to be ample in both PG&E's and SCE's service territories. DRA points to recent CAISO analysis that forecasts a 26% reserve margin for the summer of 2007 in PG&E's service territory and a 22% reserve margin in SCE's service territory.¹⁵

DRA questions whether these contracts are the best resources even if a resource adequacy shortfall exists. The Commission should consider whether PG&E's and SCE's contracts are cost effective.¹⁶ DRA also questions several of the specific terms of the contracts including the pricing structures, exercise rights, and length of the contracts. The DRA raises concerns that demand response from one of the PG&E agreements may not be a reliable resource because of the high strike price.¹⁷

DRA asserts that it would be more appropriate to reassess the contracts in 2008 when the Commission can take into account issues surrounding demand response cost-effectiveness that are being addressed in R.07-01-041, and the

¹⁴ DRA Comments on PG&E's Application at 1 (April 9, 2007) and DRA Comments on SCE's Application at 1-2 (April 9, 2007).

¹⁵ DRA Comments on PG&E's Application at 6 and DRA Comments on SCE's Application at 5.

¹⁶ DRA Comments on PG&E's Application at 4 and DRA Comments on SCE's Application at 3.

¹⁷ DRA Protest (March 29, 2007).

resource adequacy eligibility of demand response, which is currently being considered in R.05-12-013.¹⁸ DRA also questions whether the utilities had sufficient negotiating power.¹⁹

TURN

TURN does not object to the contracts proposed by PG&E and SCE, but instead identifies several positive and negative aspects of the contracts. TURN supports the non-performance provisions and flexible triggers as improvements over existing demand response programs.²⁰ However, TURN is concerned that the energy and capacity payments are too high. It believes that the level of the energy strike prices make calls highly unlikely if data from the July 2006 heat storm is indicative of future prices.²¹ TURN questions the contracts' use of a three-day baseline method and requests that the Commission direct PG&E and SCE to modify the contracts to allow the baseline method to be modified based on the findings of Rulemaking 07-01-041. It recommends that funding for the PG&E agreements come from PG&E's existing demand response budget, rather than via the ERRAs as proposed by PG&E.²²

¹⁸ DRA Comments on PG&E's Application at 2 and DRA Comments on SCE's Application at 2.

¹⁹ DRA Comments on PG&E's Application at 5-6 and DRA Comments on SCE's Application at 3-4.

²⁰ TURN Response at 3 and 5 (March 27, 2007).

²¹ Id. at 4.

²² Id. at 5.

Sellers

AER and EnerNOC filed comments pointing out shortcoming of using the Total Resource Cost test from the Standard Practice Manual to conduct the cost-benefit analysis of these demand response agreements.²³ AER argues that the avoided costs should include the value of deferred generation, transmission and distribution. The cost-benefit analysis should also recognize the option value of the contracts. EnerNOC cites similar shortcomings and further questions specific assumptions in SCE's analysis.

Others

Women's Energy Matters (WEM) raises a series of questions but does not offer specific recommendations. WEM notes that the contracts do not require that the resources are in locally constrained areas where they would be most valuable. WEM also questions whether the projected jump in megawatts between 2007 and 2008 is achievable.²⁴

The Alliance for Retail Energy Market (AReM) expressed a narrow concern related to the allocation of costs and resource adequacy credits. AReM argues that if TURN's cost allocation proposal is adopted and PG&E's agreements are paid for through the existing demand response budget then the corresponding resource adequacy credits should be allocated to all distribution customers since the demand response budgets are paid through distribution rates.²⁵

²³ AER Comments (April 9, 2007) and EnerNOC Reply (April 11, 2007).

²⁴ WEM Comments (April 9, 2007).

²⁵ AReM Comments (April 9, 2007).

Discussion

At the Commission's direction, PG&E and SCE conducted solicitations for demand response resources that would be available in 2007 and beyond.

PG&E's contracts will result in 35 to 46 MW this summer, 107 to 129 MW by the summer of 2008, and 132 MW to 149 MW in 2009 to 2011. SCE's will bring up to 40 MW by the summer of 2008, and negotiations with other sellers are ongoing. Together these contracts would represent a significant, new resource.

In D.06-11-049 the Commission believed that "seeking proposals directly from customers and aggregators could potentially unleash innovative and cost-effective demand response technologies and activities."²⁶ Based on our review of the contracts and the record in this proceeding, we conclude that utilities efforts have resulted in innovative demand response agreements. In the case of PG&E's agreements, the agreements represent contractual commitments that are very likely to be effective in reducing system demand by the expected range of megawatts due to performance requirements and potential termination damages, in contrast to some existing demand response programs that are entirely voluntary. Other attractive characteristics of PG&E's and SCE's agreements include flexible trigger mechanisms and the long commitment period – five consecutive summers for PG&E's agreement and year-round for two years for SCE's agreement. Furthermore, the range of energy strike prices and response times included in PG&E's five agreements would give PG&E a variety of resources that would each be useful under different market and reliability conditions.

²⁶ D.06-11-049 at 44.

No party disputed that the innovative characteristics of these agreements will be valuable to the utilities and their customers. TURN, for one, highlighted the attractive features of these contracts relative to existing demand response programs.

The Commission hoped that the utilities' solicitations would result in cost-effective demand response proposals. DRA commented that the Commission should consider the cost-effectiveness of the agreements. Unfortunately, we do not have sufficient information to determine whether or not these contracts are cost effective.

The Commission has recently initiated R.07-01-041 to, among other things, "[e]stablish methodologies to determine the cost-effectiveness of DR programs."²⁷ Because the rulemaking has not yet explored this matter, at the direction of the assigned ALJ, PG&E and SCE performed cost-effectiveness analysis for the proposed agreements using protocols that are generally used for energy efficiency. As AER and EnerNOC observe, however, the energy efficiency protocols miss many potential benefits of these demand response agreements. Avoided distribution and transmission costs and the option value of the contracts are among some potential benefits that the utilities did not value. The contracts could also generate significant local reliability benefits, which have not been quantified. A significant portion of the resources represented by these agreements is likely to come from locally constrained areas since those areas contain a large fraction of the candidate load. Furthermore, the rules for counting demand response for local resource adequacy are being developed in

²⁷ Order Instituting Rulemaking R.07-01-041 at 1.

R.05-12-013 and it is reasonable to expect that rules will be adopted during the terms of these agreements. In any case, having a demand response resource in a locally constrained area is valuable even in the absence of Commission-approved counting rules.

Given these concerns, we cannot determine whether the agreements are cost-effective. However, we do believe that the fact that these contracts are the result of competitive solicitation processes means that the agreements are a reasonable reflection of the demand response market. Both utilities ran open and competitive processes that resulted in multiple offers. PG&E received 14 initial offers and SCE received 17. The agreements we are considering here are products of competitive processes followed by subsequent negotiations. While TURN believes that the capacity and energy payments in these contracts are too high, we disagree. The capacity and energy payments in these contracts represent some approximation of what the market expects as payment for demand response at this time. Perhaps prices will go down over time if the demand response market continues to develop, but given today's market, the terms of these agreements are reasonable.

DRA asserts that the utilities were disadvantaged in the negotiations. We disagree. The utilities received a large number of offers, giving them an opportunity to negotiate more aggressively. The utilities also could have walked away from the negotiations and informed the Commission that they had not received any acceptable bids.

We do not agree with DRA's arguments that these agreements are unnecessary in 2007. Since the July 2006 heat storm, the Commission has

concluded that the state needs additional resources to assure system reliability during the summer of 2007.²⁸ Approving these contracts is consistent with those prior Commission actions. DRA asserts that a repeat of the heat storm is improbable. However, portions of a CAISO report included with DRA's comments indicate that there is a 3.0% chance for a Stage 3 emergency in northern California and a 3.5% chance for a Stage 3 emergency in southern California.²⁹ Under a Stage 3 emergency the CAISO initiates rolling blackouts. We believe that approving these agreements is prudent to reduce the likelihood of rolling blackouts in 2007.

In summary, we conclude that the agreements proposed by PG&E and SCE are attractive enhancements to the utilities' demand response portfolios and should be approved.

Other Issues

We approve PG&E's request to recover the costs of these agreements through the ERRRA, consistent with Resolution E-4062, rather than from the existing demand response budget as proposed by TURN. SCE is authorized to recover the costs of its contract by shifting existing demand response funds.

We agree with PG&E that its demand response agreements should be counted toward resource adequacy requirements.

We will not direct the utilities to revise the baseline used in the contract based on the results of R.07-01-041, as recommended by TURN. One of the attractions of these contracts is that they extend for multiple years, which

²⁸ See D.06-11-049 and D.07-01-041 as modified by D.07-04-049.

²⁹ DRA Comments on SCE's Application Attachment 2.

provides some consistency for the utilities and the customers that sign up. Changing the terms of the agreements mid-stream could confuse customers and affect the sellers' ability to satisfy their contractual obligations. Furthermore, each contract should be viewed as a complete package. Changing one term could require renegotiation of other terms.

SCE should continue pursuing negotiations with other potential counterparties and file an application to seek Commission approval for any additional executed demand response agreements. SCE should include a cost-effectiveness analysis with its application.

Reduction of Comment Period

Pursuant to Rule 14.6(b) of the Commission's Rules of Practice and Procedure, all parties stipulated to reduce the 30-day public review and comment period required by Section 311 of the Public Utilities Code. Comments on the proposed decision must be filed by April 27, 2007. Several parties filed comments on the proposed decision. This order makes minor nonsubstantive revisions in response to the comments.

Categorizations and Assignment of Proceeding

The Commission's Resolution ALJ 176-3189 categorized this proceeding as ratesetting, requiring no evidentiary hearings. This order affirms that categorization. The Commission held no evidentiary hearing in this proceeding.

Commissioner Rachelle B. Chong is the assigned Commissioner in this proceeding and Kim Malcolm is the Administrative Law Judge.

Findings of Fact

1. PG&E's subject agreements would provide capacity that PG&E may require during the term of the agreements.

2. SCE's subject agreement would provide capacity that SCE may require during the term of the agreement.

3. The CAISO anticipates a small but significant probability of a Stage 3 emergency occurring in Summer 2007.

4. The cost-benefit models developed for energy efficiency programs and applied to the subject demand response agreements may not adequately reflect the benefits of the agreements.

5. The Commission has an interest in promoting demand response as an environmentally sound energy resource.

6. The agreements may provide valuable experience with alternative ways of procuring and managing demand response programs.

Conclusions of Law

1. The Commission should approve the agreements proposed by PG&E for demand response between 2007 and 2011.

2. The Commission should permit PG&E to account for the costs of the subject agreements in its ERRRA.

3. The Commission should approve the agreement proposed by SCE for demand response between 2007 and 2008. The costs of the subject agreement should be paid for using SCE's existing demand response budget.

4. The demand response reductions that occur as a result of the subject agreements should be counted toward resource adequacy requirements, consistent with Commission decisions.

IT IS ORDERED that:

1. The agreements set forth in the application of Pacific Gas and Electric (PG&E) are approved, as set forth herein. The application of PG&E is otherwise approved, as set forth herein.

2. The agreement set forth in the application of Southern California Edison Company (SCE) is approved, as set forth herein. The application of SCE is otherwise approved, as set forth herein.

3. SCE is directed to continue pursuing negotiations with other potential counterparties and file an application to seek Commission approval for any additional executed demand response agreements.

4. Applications (A.) 07-02-032 and A.07-02-033 are closed.

Dated May 3, 2007, at San Francisco, California.

MICHAEL R. PEEVEY

President

DIAN M. GRUENEICH

JOHN A. BOHN

RACHELLE B. CHONG

TIMOTHY ALAN SIMON

Commissioners