

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to
Enhance the Role of Demand Response
in Meeting the State's Resource
Planning Needs and Operational
Requirements.

Rulemaking 13-09-011
(Filed September 19, 2013)

**OPENING BRIEF
OF THE OFFICE OF RATEPAYER ADVOCATES**

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August 25, 2014

I. INTRODUCTION

The Office of Ratepayer Advocates (ORA) hereby submits its opening brief in the *Order Instituting Rulemaking (OIR) to Enhance the Role of Demand Response (DR) in Meeting the State's Resource Planning Needs and Operational Requirements, Rulemaking (R.) 13-09-011*. In the August 13, 2014 Ruling, the Administrative Law Judge (ALJ) Kelly J. Hymes directed parties to file opening briefs on August 25, 2014 on a new Phase Three issue of participation in the Demand Response Auction Mechanism (DRAM) Pilot as well as the unresolved Phase Two issues of cost allocation and back-up generators (BUGs). This brief addresses all three issues and makes the following points:

- ORA illustrates why:
 1. DRAM should be a preferred means of procuring Supply DR;
 2. The overlap of schedules for DRAM pilots and Investor Owned Utilities' (IOUs') continued procurement of DR through Aggregator Managed Portfolio (AMP) contracts would make the evaluation of DRAM pilots inconclusive; and
 3. The IOUs' 2017-2019 DR cycle applications for AMP contracts for Supply and Load-Modifying DR could adversely affect the participation in DRAM pilots;
- AMP solicitations should be for a limited amount of MWs to motivate participation in the DRAM pilots;
- Participation and offers in DRAM pilot bids should be used to inform any Decision on the IOUs' 2017-2017 applications;
- Cost recovery should follow benefit allocation. Costs should be recovered from all customers, including DA and CCA customers, unless a party is able to show with clear evidence that a DR program benefits only a certain group of customers, and
- DR program tariffs should explicitly state the use of BUGS to provide DR is strictly prohibited to meet Commission's environmental goals in the Energy Action Plan.

II. DEMAND RESPONSE AUCTION MECHANISM

A. The Settlement Terms

On March 27, 2014, the Commission issued Decision (D.) 14-03-026 on the Phase Two foundational issues. The decision determined that the IOUs' Commission-regulated

demand response portfolio of programs should be bifurcated into two types of resources: 1) load modifying resources, which reshape or reduce the net load curve; and 2) supply resources, which are integrated into the California Independent System Operator (CAISO) energy markets. D.14-03-026 also clarified that operational bifurcation will occur starting the 2017 demand response program year.

On April 2, 2014, the Assigned Commissioner and ALJ issued their joint ruling providing a Revised Scoping Memo for Phases Two and Three (April 2 ACR). The April 2 ACR identified the scope of the remaining Phase Two foundational issues and the scope of Phase Three. The April 2 ACR also included a proposed DRAM in Attachment B to that ruling.

In the Settlement Agreement, the Settling Parties agreed to a mutually acceptable outcome on the Phase Three issues identified in the April 2 ACR. The Settling Parties agreed the IOUs will have the option of conducting RFOs in 2015 for delivery in 2017 and beyond for supply resource and load-modifying DR that differ from those procured through the DRAM pilot.¹ The Settling Parties also propose there should be one more three-year DR program budget cycle (2017-2019), before a longer budget cycle is considered.²

The Settlement states the IOUs may need to conduct non-DRAM Request for Offers (RFOs) in 2015 for amounts and products beyond the DRAM Pilot auction amounts, because the current AMP contracts will expire at the end of 2016 (if the Commission approves their extensions as discussed in D.14-05-025). The Settlement also states this would require a RFO in 2015 if these contracts are to be replaced with new contracts that are developed in an adequate time frame for submission and approval by the Commission.³

¹ The Motion for the Adoption of the Settlement, p. 16.

² The Motion for the Adoption of the Settlement, Attachment A - Settlement Agreement, p. 11.

³ The Motion for the Adoption of the Settlement, Attachment A - Settlement Agreement, p. 10.

B. Background

Based on the Settlement, ORA concludes the IOUs will file applications sometime in 2015 for the next three-year DR program budget cycle (2017-2019). The IOUs will need Commission guidance to allow the conducting of RFOs in 2015 for delivery in 2017 and beyond for supply resource and load-modifying DR that differ from those procured through the DRAM pilot to replace any extended AMP contracts for the 2015-2016 bridge fund years.

Although D.14-03-026 requires that operational bifurcation of DR programs occur beginning with the 2017 demand response program year, it is not clear the extent to which the existing DR programs could be integrated into the CAISO markets as supply resources. In fact, the Settlement provides for setting up a Supply Resource Demand Response Integration Working Group to (1) identify areas where requirements for integration of supply resources demand response into CAISO markets are adding significant cost and complexity, to determine whether these requirements can be simplified or changed without creating operational problems, to prioritize these possible changes, and to resolve them; and (2) identify program modifications and operational techniques to make demand response programs more suitable and successful as supply resources.

Pursuant to D.14-03-026, ORA understands that any AMP contracts proposed in the IOUs' 2017-2019 DR cycle applications will either meet the Commission's requirements for "supply resource" (i.e., Supply DR) or, alternatively, AMP contracts could be considered "load modifying resources" (i.e., Load Modifying DR). The Settling Parties acknowledge that DR program bifurcation would begin in 2017, with new and redesigned programs offered by the IOUs in their DR Budget Applications to be submitted in November 2015.⁴ However, the Settling Parties also state that further analysis is required to meet specific pre-determined needs as either Supply Resource or Load-Modifying Resource DR, and during the pendency of that work, the current valuation used to calculate the system and local resource adequacy credits for the IOUs'

⁴ The Motion for the Adoption of the Settlement, p. 14., also, the Settlement, p. 18.

existing DR programs will be retained through 2019.⁵ ORA understands the Supply Resource Demand Response Integration Working Group will continue to work after the IOUs file 2017-2019 applications in November 2015 to find ways to integrate DR into the CAISO markets. ORA infers from this that potentially AMP contracts in IOUs' 2017-2019 applications could be designated as Supply DR without having to meet the applicable RA requirements for 2017-2019, since the current valuation for RA will be retained through 2019.⁶ It is also not clear that if IOUs designate AMP contracts included in their 2017-2019 applications as Load Modifying DR whether those contracts would receive capacity payments comparable to existing AMP contracts.

C. Additionally Scoped Issue of DRAM

The Settlement states the Settling Parties agreed the narrowly scoped additional question of whether the DRAM should be a preferred means of procuring Supply DR and if so, with respect to encouraging participation in the DRAM Pilot, the potential interaction of IOU solicitations for Supply Resources with the DRAM Pilot with respect to encouraging participation in the DRAM Pilot and possible limitations on the IOUs' solicitations for Supply Resources, will be briefed.⁷

Below, ORA provides rationale for (1) why DRAM should be a preferred means of procuring Supply DR and (2) why the overlap of schedules for DRAM pilots and IOUs' continued procurement of DR through AMP contracts would make the evaluation of DRAM pilots inconclusive and (3) why IOUs' 2017-2019 DR cycle applications with AMP contracts for Supply and Load-Modifying DR could affect the participation in DRAM pilots.

⁵ *Id.*

⁶ The Settlement has different eligibility requirements for DR before and after 2019 to receive RA value. Before 2019, DR has to meet only the Commission's today's RA requirements for obtaining RA credit, whereas after 2019 DR will have to meet the then existing Commission's RA requirements.

⁷ The Motion for the Adoption of the Settlement, Attachment A - Settlement Agreement, p. 27.

1. DRAM should be the preferred means of procuring Supply DR

Until the Settlement, Energy Division's DRAM proposal included in Attachment B of the April 2, 2014 ACR was the only proposal before the Commission to procure Supply DR. The AMP RFOs IOUs have been using in the past DR cycles were not designed to provide Supply DR because they are not contractually obligated to meet all the requirements of integrating into the CAISO markets. Although the April 2 ACR provided opportunity for parties to comment on DRAM, none of the parties proposed any alternative mechanisms. The closest potential alternative to the type of resources that would be procured through the DRAM within the utilities' DR portfolios is the procurement of AMP contracts that can be modified to integrate into CAISO markets as Supply DR.⁸

However, as explained below, experience to date with AMP contracts has shown that many of them do not fulfill their current contractual performance obligations, let alone meet the more stringent performance requirements that would be required of a Supply DR resource. Supply DR resources must be integrated into the CAISO energy markets⁹ and are required to self-schedule or provide bids under the CAISO's Must Offer Obligation (MOO).¹⁰ Even if AMP contracts can be integrated into CAISO markets as Supply DR, the DRAM should be the preferred means of procuring competitive and cost-effective Supply DR.

Under the Settlement, Parties agree to work together and with CPUC staff to design and implement a DRAM Pilot program during 2015-2016. The Settlement provides for development of two DRAM pilots based on Energy Division's DRAM proposal with the following similar features:¹¹

⁸ Ex. PGE-02, Appendix F, p. F-8.

⁹ D.14-03-026, p.28.

¹⁰ D.14-06-050, Appendix B, p. B-2.

¹¹ The Motion for the Adoption of the Settlement, Attachment A - Settlement Agreement, p. 24-30.

- a. A minimum MW target of 22 MW to motivate competition among potential bidders;
- b. “Pay as Bid” auction will provide price discovery and lead to the lowest prices possible for ratepayers;
- c. Winning bids for DRAM will be required to integrate in to CAISO markets– CAISO will not have to second-guess about their reliability;
- d. Products will be designed to qualify for Supply RA credit; and
- e. DRAM pilots assess the feasibility of using an auction process to create opportunities for and competition among DR providers to provide cost-effective Supply Resources.

In contrast to the DRAM proposal described above, the current AMP procurement model used by IOUs does not ensure 1) ample competition among DR providers, 2) lowest prices possible for ratepayers, or 3) reliable performance.

The IOUs procure AMP contracts through a RFO process that result in bilateral agreements. The IOUs’ RFOs thus far did not have specific MW limits for AMPs. This current model provides no incentive for aggregators to compete with each other to provide DR products to ratepayers at lowest possible cost and as reviewers of these contracts, the CPUC has no price discovery.

Price discovery is the method of determining the price for a specific commodity through basic supply and demand factors related to the market. Currently, the primary requirement for AMP contracts is that offers must be shown to be cost-effective based on cost-effectiveness protocols using *ex-ante* load impacts. Furthermore, the cost-effectiveness protocols provide a publicly available and very detailed calculator (“the E3 calculator”) to estimate the benefit/cost ratio for each offer. This process allows each aggregator to be insulated from any competition from other aggregators by simply insuring that its own offer is cost effective based on published cost-effectiveness protocols.

Experience over the last three DR program cycles stretching over a nine year period (*more* if bridge funding years are included) indicates the AMP procurement model has produced DR offers that are barely cost-effective based on load impacts as measured

by cost-effectiveness protocols on an *ex-ante* basis. In fact, the benefit/cost ratios for some of the AMP program offers included in the IOUs' 2012-2014 DR cycle applications were substantially less than 1.0.¹²

The *ex-post* performance of many of the AMP contracts has clearly demonstrated that they are not reliable but also have consistently under-performed. Some of PG&E's AMP aggregators had to pay penalties in 2013 because their performance was so poor.¹³ SCE's AMP contracts do not include any capacity penalty provision for underperformance.¹⁴ If SCE's AMP contracts had included penalty provisions similar to that in PG&E's AMP contracts, some of SCE's AMP aggregators would have also paid capacity penalties in 2013 because of poor performance. In fact, some of the AMP aggregators performed so poorly for both PG&E and SCE that they decided not to renew their AMP contracts for the 2015-2016 bridge funding years.¹⁵

A specific MW limit would provide motivation for aggregators to participate in the DRAM pilots. Without such a limit, bidders would see that as long as they provide cost-effective offers, they will likely get an AMP contract and would not be motivated to participate in the DRAM pilots.

2. The overlap of schedules for DRAM pilots and IOUs' continued procurement of DR through AMP contracts would make the evaluation of DRAM pilots inconclusive

Because of the overlap of schedules for DRAM pilots, IOUs' 2015-2016 approved Bridge Fund programs, and IOUs' expected 2017-2019 DR cycle applications, the true potential of DRAM remains unclear unless DRAM pilots have the opportunity to access a sufficient number of eligible customers.

¹² D.12-04-045, p. 32.

¹³ Ex. ORA-04c.

¹⁴ D.13-01-024, *Decision Granting Applications For Demand Response Aggregator Managed Portfolio Agreements*; SCE 2013-2014 Agreements; Section 3.3.2 Delivered Capacity Payment Calculation.

¹⁵ Ex. ORA-04c, Ex. ORA-05c, SCE AL 3078-E, p.4. and PG&E AL 4457-E, p. 1.

As noted in the draft schedule included in the Settlement, the first of two DRAM auctions will be held in July 2015 and the second auction in March 2016.¹⁶ The IOUs' Advice Letters requesting approval for extending the existing AMP contracts for the 2015-2016 are currently pending before the Commission.¹⁷ The preparations for both DRAM pilot auctions will continue throughout 2014 and 2015. In addition, the Settlement provides for another three-year DR budget cycle covering 2017-2019. The IOUs indicated they will have to file applications by November 2015 to get appropriate Commission approvals before the budget cycle begins on January 1, 2017.¹⁸

The Commission is expected to issue a decision on whether or not it would adopt the Settlement by December 2014. If the Commission adopts the Settlement, all parties including all potential DR aggregators, all potential DR customers and IOUs will know there are primarily two pathways to participate in DR programs during 2015 and beyond.

One well-known pathway is through the IOUs' AMP programs which have provided a steady stream of capacity payments to DR aggregators with insufficient or no penalties, over the last ten years or so. As discussed earlier, (1) AMP contracts in IOUs' 2017-2019 applications could be designated as Supply DR without having to meet the applicable RA requirements for 2017-2019, and/or (2) IOUs' AMP contracts included in their 2017-2019 applications as Load Modifying DR could still receive capacity payments comparable to existing AMP contracts. The participants in this pathway option are already very familiar with risks and rewards. In either case, the AMP aggregators will be paid based on the avoided cost as determined by the cost-effectiveness protocols.

The other pathway is through DRAM which would start from pilots and, if the pilots show results the Commission finds desirable, move into a standardized program. The winners of the awards through competitively procured DRAM pilots and regular DRAM auctions are not necessarily compensated based on avoided costs as has been the experience with AMP contracts but would be paid based on their bids, in addition to

¹⁶ The Motion for the Adoption of the Settlement, Attachment D to Settlement Agreement.

¹⁷ PG&E AL 4457-E and SCE AL 3078-E.

¹⁸ The Motion for the Adoption of the Settlement, p. 14.

meeting the avoided cost requirement. Furthermore, participants in the DRAM pilot auctions will have to meet much more stringent RA requirements of Supply DR that AMP participants don't have to meet until 2019 per the Settlement.¹⁹

Given these two options and the overlapping schedules for 2015 and 2016 DRAM pilots and extending or issuing new RFOs for AMP contracts during 2015 through 2019, one can reasonably conclude that most aggregators and their customers, if not all, will opt for the less-stringent, lower-risk, and well-compensated AMP option. As CLECA questioned (and SCE agrees with CLECA), why would customers participate in DRAM for potentially lower payments in a competitive auction than what is available through participation in utility programs?²⁰

Another complicating issue is there is probably only a small sub-set of DR customers who can currently meet the stringent CAISO tariff and DRAM's RA requirements. This means there has to be a very large universe of customers available for meeting the minimum goal of 22 MW for each of the DRAM pilots. For example, PG&E found that only 10-20 MW of customers out of a universe of 795 MW of available customers from its DR portfolio can meet CAISO's requirements for bidding into its PDR energy market.²¹ Based on PG&E's experience then, for their share of 10 MW in each DRAM pilot, large amounts of customer load needs to be available to potential bidders to obtain eligible customers. Currently, AMP aggregators do not need such a large funnel to obtain eligible customers, as they have to meet only their contractual commitments with the IOU's, which do not include integration with CAISO as a requirement.

Unless the Commission ensures there are sufficient MWs of eligible customers available for DRAM pilots, the DRAM is likely to fail without reaching a conclusion about its efficacy. Of course, if DRAM pilots show robust participation despite these obstacles it could be considered as a success and going forward, a preferred procurement

¹⁹ The Motion for the Adoption of the Settlement, p. 14., also, the Settlement, p. 18.

²⁰ Ex. CLE-01, p.27; Ex. SCE-02, p. 5.

²¹ Ex. PGE-02, Appendix F, p. F-8.

mechanism for Supply DR. The Commission should not gamble and assume that DRAM pilots would succeed regardless but instead provide the DRAM pilots the opportunity to succeed. If DRAM pilots show success, it could help achieve the Commission's goals for CAISO integration of DR and reducing ratepayer costs for Supply DR.

3. The Commission should limit AMP MW procurement through RFOs during 2017 through 2019 to provide sufficient eligible customers for DRAM pilots.

The current AMP contracts expire at the end of 2014. The IOUs have filed Advice Letters to extend them through 2015 and 2016 bridge fund years.²² ORA is concerned that if the IOUs are allowed to procure AMP contracts without any limits through the next DR cycle (2017-2019), it would provide substantial additional incentives to DR customers to sign up with AMP contracts for a long-term, low-risk, high value benefit in contrast to the financial and performance risks associated with participating in competitive DRAM pilots and in any future DRAM auctions.

D. ORA's Recommendations

Given the DRAM pilot auctions will take place in 2015 and 2016, and in light of PG&E's experience with finding few eligible participants for bidding into CAISO markets, ORA has two recommendations (described below) to ensure availability of customers for DRAM pilots while also ensuring continuity of AMP supply and load-modifying DR programs.

1. The commission should limit the size of each IOU's AMP contracts in their RFO solicitations in connection with their 2017-2019 DR applications to encourage participation in DRAM pilots during 2015 and 2016. Each IOU's AMP MW solicitation should be limited to their proven performance during events in the peak summer months of 2013.²³

²² PG&E AL 4457-E and SCE AL 3078-E.

²³ PG&E limit 181.226 MW; SCE limit 160.09 MW; ORA recommends that the MW limit for each IOU be based on the maximum load impact performance results used for settlement for each aggregator contract for the events during the peak summer months of August and September 2013. Ex. ORA-04c, Ex. ORA-05c.

2. The Commission should have a timeline and process in place to allow information on the bids received in the DRAM pilots auctions to be included in its consideration of the IOUs applications for 2017 -2019. The following shows anticipated dates for the DRAM and AMP RFOs:
 - a. May 2015: If granted by the Commission, RFOs issued for inclusion in Applications for 2017-2019
 - b. July 2015: Issue DRAM Pilot Auction 1²⁴
 - c. November 2015: IOUs file Applications for 2017-2019
 - d. March 2016: Issue DRAM Pilot Auction 2

III. COST ALLOCATION

1. Demand Response Programs

The current Cost Recovery accounting mechanisms are not consistent across the three IOUs, even for the same or similar programs. ORA recommends unless the IOUs can demonstrate specific reasons for different mechanisms, the Commission should require consistency.²⁵

Since the Commission has yet to establish clear guidance on cost recovery, the three IOUs can recover program implementation costs differently for the same DR program. PG&E uses cost causation principles that ensure DR program costs are recovered via distribution rates from all customers who either participate in or benefit from the programs.²⁶ SCE's method recovers costs only from those customers who are able to participate in a given DR program.²⁷ Both DACC and AReM argue costs associated with utility programs should be recovered through generation rates that are paid by the utilities' bundled customers only.²⁸ So, depending on the program, costs are recovered from either the bundled customers or all customers.

In rebuttal testimony, AReM/DACC argue the functionality of DR is similar to generation, and uses ORA's testimony to support that assertion: "For example, Mr.

²⁴ The Motion for the Adoption of the Settlement, Attachment D to the Settlement Agreement.

²⁵ Ex. ORA-01, p. 17.

²⁶ Ex. ORA-01, p. 17.

²⁷ Ex. ORA-01, p. 17.

²⁸ Ex. ORA-01, p. 17.

Sudheer Gokhale, the witness for ORA, noted that the benefits of DR programs ‘primarily accrue to customers in the form of reduced generation costs.’²⁹ To this end, DACC/AReM argue that a majority of the parties’ testimony—including ORA’s—align with its own, and that parties cannot “credibly argue” that DR helps IOUs meet their own LSE procurement obligations for bundled customers, but then suggest the associated costs be recovered from both bundled and non-bundled customers through distribution rates.³⁰ ORA disagrees.

Cost recovery should follow benefit allocation. ORA recommends that costs should be recovered from all customers, including DA and CCA customers, unless a party is able to show with clear evidence that a DR program benefits only a certain group of customers. In such cases, costs could be recovered from only those customers who benefit from the DR program. Reliability benefits impact all users of the distribution system, as they reduce system resource adequacy costs and prevent outages affecting all distribution customers.

ORA recommends DR implementation costs be allocated to all customers using a calculation method that reflects total revenues. Using the equal percent of revenues allocation is a balanced approach recognizing that DR benefits primarily accrue to customers in the form of reduced generation costs and secondarily as reduced transmission and distribution costs. This method also recognizes that all customers benefit from DR programs. Therefore, this method is fair to both the Commission-regulated utilities and other Load Serving Entities.³¹

2. DRAM

DACC/AReM asserts that because the DRAM would be one way the IOUs could meet their RA requirements, the associated RA capacity credit should apply solely to the

²⁹ Ex.DAC-02, p. 2.

³⁰ Ex. DAC-02, p. 4.

³¹ Ex. ORA-01, p. 17.

bundled customers.³² Thus, DACC/AReM, concludes, “DRAM procurement that involves RA capacity should have its costs recovered through generation rates.”³³

ORA disagrees. Demand response, whether procured through DRAM or otherwise, should be recovered from all customers, as outlined in ORA’s arguments above.

IV. BACK-UP GENERATORS

The Natural Resources Defense Council has proposed a “retrofit, retire or replace” pilot program aimed at the dirtiest, pre-2000 BUGs, which includes replacement with storage technologies.³⁴ Environmental Defense Fund has recommended a pilot program to examine replacing fossil-fueled back-up generation with clean energy storage, networked into the grid.³⁵ Sierra Club supports the consideration of these two pilots.³⁶

However, Sierra Club acknowledges the following:

As the Commission has recognized, back-up generation typically uses high emitting fossil fuels. Disallowing [BUGs] use for DR programs for resource adequacy purposes is consistent with the Energy Action Plan’s loading order. Sierra Club agrees with the Commission that DR programs that rely on fossil-fueled back-up generation contradict California’s DR vision and its loading order requirements, with or without bifurcation, and that the Commission’s policy should apply in either case.³⁷

ORA agrees with Sierra Club’s restatement of the Commission’s policy on BUGs, but disagrees on the proposals set forth by either NRDC or EDF. These specific pilots are not demand response related, and belong in the energy storage rulemaking or

³² Ex. DAC-02, p. 13.

³³ Ex. DAC-02, p. 13.

³⁴ Ex. SCL-01, p. 22.

³⁵ Ex. SCL-01, p. 22.

³⁶ Ex. SCL-01, p. 22.

³⁷ Ex. SCL-01, p. 22.

appropriate docket. Moreover, any pilot or research and development should properly be funded through EPIC, which funds new technologies.

ORA recommends the utilities' DR program tariffs explicitly state that the use of BUGS to provide DR is strictly prohibited.³⁸ In terms of enforcement, third-party aggregators likely have the more intimate knowledge of DR strategies employed by the customers involved in DR programs. Therefore, there should be financial consequences for the Demand Response Providers (LSEs or third-party) for either knowingly allowing or ignoring a customer's use of BUGs in providing DR,³⁹ but also an incentive for reporting repeated bad actors to the proper authorities and/or utilities.

V. CONCLUSION

For the reasons discussed above, the Commission should adopt ORA's recommendations regarding the issues surrounding DRAM, cost allocation and the use of BUGs.

Respectfully submitted,

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August 25, 2014

³⁸ Ex. ORA-01, p. 16.

³⁹ Ex. ORA-01, p. 16.