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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)

THE OFFICE OF RATEPAYER ADVOCATES' RESPONSE TO PHASE TWO FOUNDATIONAL QUESTIONS

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I. INTRODUCTION

The Office of Ratepayer Advocates (ORA) submits the following response to the foundational questions of the *Joint Assigned Commissioner and Administrative Law Judge Ruling and Scoping Memo* (Scoping Memo), in the above referenced docket. Ordering Paragraph 7 of the Scoping Memo directs parties to provide responses to a set of foundational questions regarding Phase Two of Rulemaking (R.)13-09-011 by December 13, 2013.[1]

II. DISCUSSION

A. Bifurcation

1. The Terms "Demand-Side" and "Supply-Side" Should Be Defined Based on Their Purpose

In the Order Instituting Rulemaking (OIR), the Commission proposes to bifurcate the current Demand Response (DR) programs into demand-side and supply-side resources. As stated in the Scoping Memo, the "OIR defines the demand-side programs as customer focused programs and rates, and supply-side resources as reliable and flexible demand response that meets local and system resource planning and operational requirements."[2] While ORA does not object to the terms "demand-side" and "supply-side," the definitions used for the terms should be changed to align the requirements of programs that would fall into these two buckets based on the specific purpose they serve.

Demand-side DR programs should be defined as *load modifiers that change the load shape and are embedded in the California Energy Commission's (CEC) load forecast that system operators are required to plan for and meet*.

The current definition of demand-side programs as "customer focused" is vague as all DR programs are in some way customer-focused. All DR programs provide customers with some incentive or benefit based on the customer's ability to respond to

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[1] Scoping Memo, p. 11.

[2] Scoping Memo Attachment 1, p. 1.

their respective program, whether it's a demand-side program such as Time of Use (TOU) program, which modifies the load, or a supply side program such as Capacity Bidding Program (CPB) that provides needed capacity to meet the load.

Supply-side DR programs should be defined as *programs that are used as resources to meet the demand forecast and can meet local and system resource planning and operational requirements*. These resources must be capable of qualifying for Resource Adequacy (RA) credits to demonstrate that they will be part of a Utility's resource portfolio.

Regardless of whether a DR resource is categorized as demand-side or supply-side, however, it needs to be accounted for and reflected either in Utility's load forecast or as a resource in its planning and operational requirements prescribed by the CPUC or the CAISO. This will avoid excess procurement of capacity.

Table 1 below shows how the current DR programs could be categorized into demand-side and supply-side based on the purpose they serve in a Utility's resource planning process.

Table 1: ***Mapping the Bifurcation of Current Programs***

Demand-Side Programs[3] (reflected in CEC's Load Forecast)	**Supply-Side Programs** (reflected in meeting CPUC's RA requirement)
Real Time Pricing Time of Use Pricing Permanent Load Shift Critical Peak Pricing Peak Time Rebate	Agricultural and Pumping Interruptible Base Interruptible Program A/C Cycling Demand Bidding Program Capacity Bidding Program Aggregator Managed Portfolio

[3] CEC September 2013 Draft 2014-2024 Revised Forecast currently reflects RTP, TOU, PLS, CPP and PTR http://www.energy.ca.gov/2013publications/CEC-200-2013-004/CEC_200-2013-004-SD-V1-REV.pdf

2. Bifurcation of DR Programs Should Still Provide Opportunities for Participation to the Greatest Extent Possible

Current supply-side programs could be further distinguished between those that can participate in the CAISO's energy markets, through their Proxy Demand Resource (PDR) or Reliability Demand Response Resource (RDRR) products[4], and those that cannot. The OIR states the future goal of supply-side DR is to increase and expand their participation in the CAISO energy market.[5]

Not all DR programs are capable of meeting the CAISO requirements for participation in the energy market. However, these programs can still avoid procurement of conventional generation capacity and qualify for RA credit. For example, the AC Cycling programs have large numbers of residential and small commercial customers for whom it would not be cost effective to install technology to meet the current CAISO requirements for "direct telemetry and direct ISO metering of individual resources," e.g., each air conditioning unit.[6] These programs are still valuable supply-side resources that provide fast response throughout California and should not be discounted in any way due to their current inability to participate in the CAISO's energy market.

Additionally, bifurcation of demand-side and supply-side programs should not lead to silos that limit how a customer can participate. Customers should be provided information on all programs in such a way that motivates participation to the best of their capabilities. For example, customers who do not have the flexibility to respond to day-ahead or day-of event signals should be encouraged to adopt a Time of Use rate that will motivate consistent behavioral change that will impact the load forecast. If they are also capable of immediate response to event signals, they should be encouraged to enroll in an event based program, in addition to their Time of Use rate.

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[4] While PDR is currently available, RDRR is awaiting FERC approval.

[5] Scoping Memo Attachment 1, p. 1.

[6] CAISO Demand Response and Energy Efficiency Roadmap, June 12, 2013 Draft, p. 17.

3. Customers Should Be Able To Participate To the Best of Their Abilities

ORA recognizes the tension between program requirements and the customer's ability to respond to those requirements in current programs that will not necessarily change due to bifurcation of the programs. More important, however, is to ensure that the opportunities are not missed in the bifurcation process. Bifurcation into demand-side and supply-side programs should not lead to silos that limit how a customer can participate or what program information a customer receives. All customers should be fully informed about the opportunities for participating in both demand and supply side programs, so that their participation is aligned with their business needs. This will ensure reliability of their response to DR events and also ensure their continuing participation in the programs.

4. Bifurcation Will Not Require Changes in the Load Impact Protocols but May Require Changes In Cost-Effectiveness Methodology

The current load impact protocols are used for the evaluation of current programs to develop ex-ante forecasts and ex-post results that are used in program evaluation and planning. These evaluations will still be necessary after the programs are bifurcated to determine performance and implement any needed changes to programs. The protocols themselves do not require revisions based on bifurcation alone but if program designs are changed or new types of programs are developed to meet future requirements of the grid, the protocols may need to be updated to accommodate such changes. For example, the current protocols may not be appropriate for evaluating demand response programs that are designed to meet the flexibility needed for integration of renewable resources. The current protocols value DR programs primarily for their ability to reduce peak demand and do not provide guidance on valuing other attributes such as ramping, load following, etc.

The Commission may consider different methods of valuing demand-side and supply-side programs based on their attributes. If program requirements change in a material way, it is possible that in addition to changes to current load impact protocols,

changes to current cost-effectiveness protocols also may be necessary. The Commission should address this issue in this OIR.

B. Cost Allocation

1. IOUs Should Identify How and What Benefits Each DR Program Provides to the Grid and Their Customers

The cost recovery should follow whether a given DR program benefits only the utility's bundled customers or helps maintain the reliable operation of the grid as a whole, thereby benefitting all customers on the grid, including Direct Access (DA) and Community Choice Aggregator (CCA) customers. DR program costs can be allocated to customer classes using various methodologies, and depending on what benefits they provide, costs should be recovered through either the generation or distribution rates. Currently, there is no clear Commission guidance on cost recovery and consequently the three IOUs can recover program implementation costs differently for the same DR program. There should be a more qualitative discussion in utilities' applications about each program's benefits and associated cost recovery mechanism to ensure equitable and consistent cost allocation and recovery between different load serving entities.

2. In the Absence of A Showing Otherwise, The Presumption Should Be That DR Programs Provide Benefits to All Customers on the Grid

While DR programs benefits are predominantly generation-related, they also provide a secondary benefit by reducing future costs of transmission and distribution upgrades.[7] Thus, 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

[7] PG&E, A.05-06-028, Ex. PGE-4, ch. 5, p. 5-2:11. 14-20.

reduced transmission and distribution costs.[8] This method also recognizes that all customers benefit from DR programs.

As discussed earlier, 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.

There may be arguments why costs of certain demand-side programs should be recovered from a narrower group of customers. But that should be fully discussed and justified in the Utilities' DR applications for each demand-side DR program.

C. Back-Up Generators

1. Data On Customer Back-up Generator Usage In DR Programs

While ORA does not have data on the use of back-up generators (BUGs) in demand response programs, the United States Environmental Protection Agency (EPA) provided a grant for research that will investigate the issue.[9] The EPA will utilize recently available data when BUGs run to assess cumulative emissions impacts in California. According to the EPA, the study aims to (1) obtain and format the run-time logs, which detail the specific usage patterns, and (2) identify which of these BUG owners also are participants in DR programs. The hours of BUG usage will be cross-referenced against the schedule of events for various DR programs, providing a target number of hours that BUGs are used for DR. The study will create simple spreadsheet tool that policy makers may use to input raw data on BUG usage. The output of the tool

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[8] ORA Testimony on Pacific Gas and Electric's ("PG&E") 2014 General Rate Case Phase II, Chapter 4.

[9] EPA Grant FP917341 "Assessing the Emissions Impacts of Demand Response Programs Due to Diesel Backup Generation in California" http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/9782/report/0

will be emissions rates that air quality modelers can utilize to determine specific local effects.

The data collected for this study would provide information relevant to this proceeding and should be included in the record.

2. Bifurcation of DR Programs Should Not Change the Commission's Policy on the Use of BUGs for DR

Allowing the use of BUGs for participation in demand participation could increase generation from fossil-fuel resources and increase emissions of hazardous air pollutants relative to the same capacity needs being met by alternative market resources.[10]

ORA supports the Commission's policy that "fossil-fueled emergency back-up generation resources should not be allowed as part of a demand response program for resource adequacy purposes."[11] In Decision (D.) 09-08-027, the Commission stated that "subsidizing backup generation with demand response funds is not appropriate; [we] prefer to reserve these funds for activities that reduce total energy use."[12] As the IOUs continue providing DR programs, the Commission should continue to reject any subsidization or use of back-up generation in meeting the Commission's demand response goals.

III. CONCLUSION

ORA proposes more focused definitions for demand-side and supply-side demand response that reflects their purpose. ORA supports participation of customers in both demand- and supply-side programs and providing information on both types of programs to enable opportunities for participation consistent with customers' business needs and

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[10] Hibbard, Paul J., Analysis Group, *Reliability and Emission Impacts of Stationary Engine-Backed Demand Response in Regional Power Markets*, August 2012 http://www.analysisgroup.com/uploadedFiles/Publishing/Articles/August_2012_Hibbard_DemandResponseReport.pdf

[11] D.11-10-003, Conclusion of Law No. 5.

[12] D.09-08-027, p. 166.

capabilities. ORA recommends that implementation costs of DR programs be recovered from all customers that benefit using an allocation methodology proposed by ORA in its testimony in PG&E's 2014 General Rate Case.

Respectfully submitted,

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