

**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)

**RESPONSE OF PACIFIC GAS AND ELECTRIC
COMPANY (U 39 E) TO JOINT ASSIGNED
COMMISSIONER AND ADMINISTRATIVE LAW JUDGE
RULING AND SCOPING MEMO**

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I. INTRODUCTION

Pursuant to the November 14, 2013, *Joint Assigned Commissioner and Administrative Law Judge's Ruling and Scoping Memo* (Scoping Memo), Pacific Gas and Electric Company (PG&E) responds to the questions in Attachment 1 of the Scoping Memo regarding foundational issues that will be reviewed in this rulemaking.

PG&E's comments are organized as follows:

- Section II summarizes PG&E's comments.
- Section III responds to questions regarding bifurcation of demand response into supply-side or demand-side resources.
- Section IV responds to questions regarding cost allocation of demand response under bifurcation.
- Section V responds to questions regarding the role of back-up generation and demand response.

II. SUMMARY OF PG&E'S RESPONSES

A. Bifurcation

- PG&E supports the concept of bifurcation and offers alternative definitions of supply-side and demand-side demand response (DR) to help advance this concept.
- PG&E proposes several ideas that could reduce the tensions in reconciling demand-side and supply-side DR.
- Enabling a wide range of options to capture more DR will help capture the most value from DR.

- The Commission should clearly define and value how the system needs will change in the coming years. Any new needs (such as those driven by the need for renewable integration (e.g. the “Duck Curve”)) should be premised on evidentiary support.
- The Commission should first seek to modify existing DR programs to meet new needs; to the extent new DR programs are needed the Commission should require a pilot.
- The DR Load Impact Protocols adopted in D.08-04-050 should continue to be the standard framework used for estimating all DR programs’ load shedding capability for the purpose of Resource Adequacy (RA) and long-term planning.
- Developing separate criteria for evaluating DR resources reclassified as demand-side and supply-side appears to be unnecessary and may create a misleading distinction between the proposed resources types.

B. Cost Allocation

- The Commission should seek additional information to determine the customer needs that current DR program revenue requirements support, how these revenue requirements are recovered via functional rates and balancing account mechanisms, customer participation rules for DR programs, and to identify which customers benefit from DR program load reductions.
- Any revisions to the current cost allocation rules for DR programs should be consistent with previous Commission decisions, including D.97-08-056.
- RA rules should not be adjusted if DR resources are bifurcated as supply-side and demand-side resources.

C. Back-up Generation

- There is little data or reports regarding customers’ use of back-up generation units (BUGs) during DR events.
- If the Commission bifurcates DR resources into demand-side and supply-side resources, this could impact the Commission’s ability to enforce its policy regarding the use of BUGs during DR events.
- Supply-side DR that is bid into the California Independent System Operator (CAISO) market might end up also being regulated by the Federal Energy Regulatory Commission (FERC) and thus the participation rules might not remain entirely within the Commission’s jurisdiction. Thus, it is unclear whether the Commission would be able to prohibit the use of BUGs during DR events if the DR is bid into the CAISO market.

III. BIFURCATION

- A. In the Order Instituting Rulemaking (OIR), the Commission proposes to bifurcate the current demand response programs into demand-side and supply-side resources. (See Figure 1 below for the proposed realignment.) 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. Please comment on the terms, demand-side and supply-side resources, and the definitions provided. If you disagree with the terms and/or definitions, please provide your recommended changes and explain why your recommendation is more appropriate.**

PG&E conceptually supports the Commission's proposal to bifurcate DR into supply-side and demand-side resources. Bifurcation may increase the value of existing DR and help solve existing and new grid reliability challenges. However, PG&E sees the need for a clearer definition of supply-side and demand-side DR, and proposes a revised set of definitions. Revised Figure 1 below graphically demonstrates PG&E's proposal. PG&E proposes an overall vision to accomplish bifurcation, the key elements of which are given below. Bifurcation will be most successful if it maximizes customers' opportunities to provide cost-effective supply-side and demand-side DR.

1. PG&E Proposes Alternative Definitions of Supply-Side and Demand-Side DR to Provide a Clear and Simple Distinction Between Them.

The differentiation between supply-side and demand-side DR should be simple and predictable. Figure 1 of the Scoping Memo categorizes specific demand-side programs and dynamic rates as either supply-side or demand-side. The definitions proposed in the Scoping Memo mix attributes of supply-side and demand-side resources with no clear dividing line between the two. This results in a lack of clarity. Similarly, the inferred definitions of supply-side and demand-side resources used in the question should be clarified. PG&E proposes the following alternative definitions.

- Supply-side resources are those that are bid into the CAISO markets and dispatched through the CAISO markets as a generation-like product (e.g., Proxy Demand Resource, Reliability Demand Response Resource, Participating Load, etc.); and

- Demand-side resources (or load modifiers) are those that are not bid into the CAISO markets or dispatched through the CAISO markets as a generation-like product.

The only difference between supply-side and demand-side DR should be how the product is utilized, rather than its level of reliability or whether the program is “customer-focused.” PG&E strongly disagrees that supply-side DR is somehow more reliable than demand-side DR, and that demand-side DR is somehow more “customer-focused.” Demand-side DR has been reliable, flexible and has helped the utilities and CAISO meet planning and operational requirements for many years in California (as demonstrated by its use in the Long-Term Procurement Planning (LTTP) and RA processes), and by independent system operators and regional transmission organizations throughout the country. The reality is that regardless of how DR is classified, it is ultimately a customer-focused program that must deliver reliable performance. Customers create the need for generation, provide the DR, and choose whether to participate in a DR program. Therefore, any DR program, whether supply-side or demand-side, must have a customer focus. A program without a customer focus will lose customer participation.

After the definitions for supply-side and demand-side DR are finalized, the next question to be addressed is what existing programs, if any, should be migrated into the wholesale market. The decision on what DR programs (or parts of programs) are deemed supply-side rather than demand-side should not be predetermined by this process, but should be a business decision made by the DR provider, load-serving entity (LSE), utility distribution company (UDC), and customer. If the market conditions are suitable for a particular product or program to be a supply-side resource, then that decision is best made by DR providers and customers on an economic basis. Allowing DR to show up where it is most economical to do so will optimize the amount of supply-side and demand-side DR in the market and create incentives for innovative DR products and technologies.

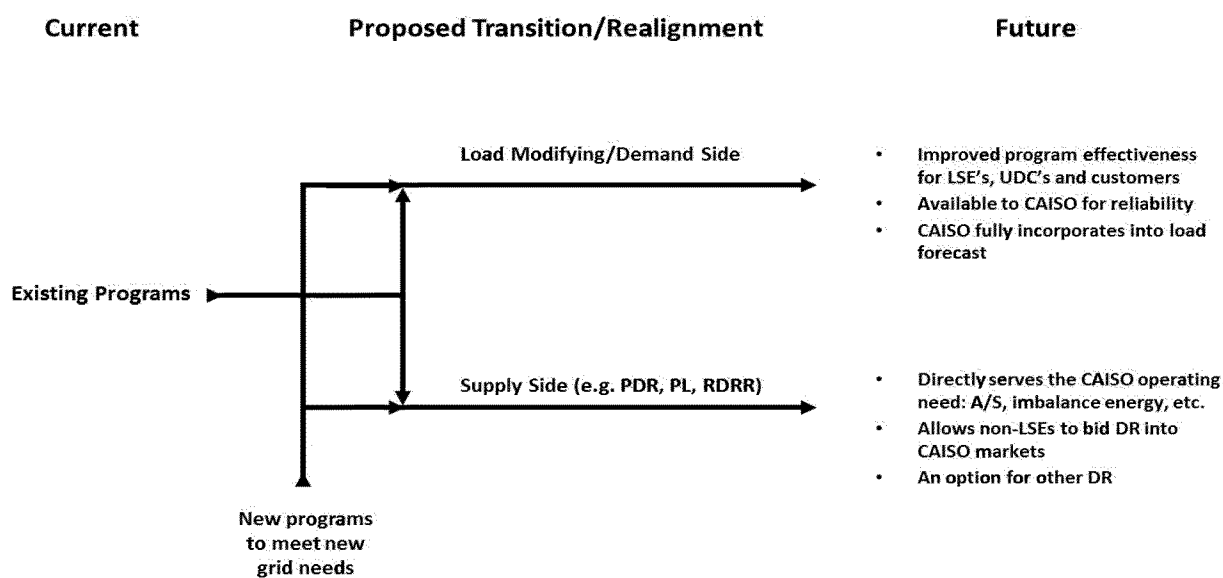
There are some potential grey areas associated with categorizing a DR program or resource as either supply-side or demand-side that should be considered. For example, there may

be instances when an IOU will want to dispatch a supply-side DR program to address a distribution-level reliability issue. In these instances, the program would likely be dispatched outside the wholesale market because the CAISO dispatch algorithm might not reflect distribution-level conditions. It would be impractical for an IOU to be prohibited from dispatching any of its DR programs for distribution-level reliability simply based on their categorization. This issue could be addressed by allowing either category of DR to be used in a manner similar to resources in the other category when necessary.

There may also be instances when not all of a DR program’s enrolled capacity may be able to be bid in as supply if there are CAISO requirements that may not be met by all program participants (e.g., size of load drop within a sub-load aggregation point). Thus, it is possible that part of a DR program could be bid as a proxy demand resource (PDR) with part of it remaining as a demand-side resource.

PG&E proposes to revise Figure 1 to clarify the Proposed Transition/Realignment. New DR programs, which can be supply-side or demand-side, were added to the chart because meeting new needs may require new types of programs.

Figure 1 (PG&E Revision)



2. Enabling a Wide Range of Options is Conducive to Capturing the Most Value from DR.

The Commission should create opportunities for a broad array of DR products and programs to develop and grow, while preserving the momentum and value of existing programs to increase customer choice and subscription levels. These opportunities could be either demand-side and supply-side resources that are dispatchable at the substation, subLAP, Local Capacity Area (LCA) or Default Load Aggregation Point (DLAP) level on a day-ahead or day-of basis, and provide peak-shaving, load-generating or flexible capacity. Again, the key is to make all of these options available and let DR participants (customers, LSEs, DR providers, etc.) choose the best path for them, rather than mandate procurement targets for supply-side or demand-side DR. The Commission should also view DR programs from the perspective of enabling customers to reduce planning and operational resource needs. Providing a series of options for DR participants would allow them to select the optimal way for them (based on their unique characteristics) to reduce the need for conventional generation resources.

The Commission should remove barriers to the growth of cost-effective DR to increase customer choice. Some key actions that would contribute to removing these barriers are:

a. Drive Market Transformation in DR-Enabling Technologies.

The Commission should leverage existing technologies such as AutoDR, programmable controllable thermostats (PCTs), Home Area Network (HAN), Advanced Metering Infrastructure (AMI), Customer Data Access (CDA), and new market entries. These technologies have the capability to improve customers' responses to DR events and avoid creating resource needs with greater certainty and less impact, enable DR aggregators and vendors to develop innovative products and services, and enhance customer opportunities to decrease their energy usage. Leveraging these and future technologies will improve the ability of more customers to participate in DR, and provide specialized DR products to enhance grid reliability.

b. Work With CAISO to Reduce the Cost and Complexity of Integrating DR in Wholesale Markets.

The Commission, IOUs and DR providers should continue to work with the CAISO to improve the value of demand-side DR to the CAISO, and to reduce the cost of supply-side and demand-side DR. PG&E identifies some possible approaches in its response to Question 1.c.

c. Ensure that the DR Cost-Effectiveness Protocols Accurately Reflect All Benefits that Existing and Future DR Provide.

The Scoping Memo lists cost-effectiveness as a foundational issue and includes it in Phase Two of this proceeding. The Commission should address the major deficiencies (“A” factor, dual participation, portfolio costs) in the cost-effectiveness protocols identified in D. 12-04-045, FOF 13. Also, to the extent that DR will need to provide newly defined products to reduce or meet a specific need, the value associated with these capabilities must be determined. For example, if the Commission wants to create a flexible DR product to aid in renewables integration, it will need to assign a value in the cost-effectiveness protocols to the flexibility attribute to balance out the incremental cost of providing this capability.

d. The Commission Should Clearly Define and Value How the System Needs Will Change in the Coming Years.

As mentioned above, DR has the potential to meet a wide range of needs for the grid and for customers. These needs and their associated value must be clearly understood and identified to allow DR providers to develop the products and programs to meet them. Any new needs (e.g., those driven by the need for renewables integration) should be based on evidentiary support. The LTPP is the appropriate proceedings in which a need determination and procurement authorization to meet the need will be addressed.

Examples of these needs are:

- Peak load shaving (driven by hot weather)
- Meeting or avoiding local transmission-level reliability extreme conditions
- Meeting or avoiding distribution-level reliability extreme conditions

- Meeting or avoiding system-level reliability extreme conditions
- Meeting the morning and evening upward ramps
- Mitigating the effects of possible over-generation due to very low mid-day net load
- Tools for customers to manage their electric costs and level of service

The necessary qualities and characteristics of the DR product intended to address a newly-identified need should be developed collaboratively to ensure that the DR product can successfully reduce or meet the need, and that customers and DR providers can feasibly deliver the product.

e. Add New DR Products and Evolve Existing DR Products to Reduce and/or Meet New Needs as DR Experience Confirm New Pathways to Capture Additional DR Value.

Once a new need for a DR product is identified, the Commission should first consider if the need can be reduced or met through the use of or modification of an existing DR resource. If a new DR product must be developed, the IOUs should implement a pilot, in partnership with DR aggregators as necessary, to test its feasibility. If it is found that the pilot can be cost effectively implemented on the requisite scale, the Commission and/or the CAISO will need to ensure that the appropriate conditions are in place to encourage the implementation of the new DR product.

In the meantime, the Commission should also focus on the following fundamental steps to ensure a constructive environment for meeting its DR policy goals: 1) timely implementation of Electric Rule 24; 2) provision of a stable, long-term platform for DR to grow (e.g., longer program cycles, and more simple, long-term AMP contracting processes), and 3) development of rules for supply-side DR to fully participate in the RA process. These steps would establish a foundation for regulatory certainty which is an essential ingredient for DR providers to undertake the risk of developing new DR products.

Any effort to develop new DR products should begin with simple products; more complex products can be developed and piloted once greater experience is gained. This

approach has been used for DR by the eastern RTO/ISOs; their path toward integrating DR into their markets has generally been measured and deliberate. The Commission should seek to learn from the experience of these other markets and identify what would work in the California market. The Commission should apply this same approach and first consider how simple DR programs can be fully utilized to reduce needs before developing more complex DR programs to meet these needs. For example, the Commission should first consider how DR can free up existing conventional resources to provide specialized products before considering how DR can provide the same specialized products. DR products that are not “fast and flexible” could still free up generation resources that are “fast and flexible”, and thus serve to meet the need for resources with these qualities. Indeed, many demand-side resources (e.g., permanent load shifting, dynamic rates and energy efficiency) can potentially change the load shape and thus reduce the need for some of the “fast and flexible” resources. Consideration of all demand-side resource capabilities should be part of any fact-based analysis of new needs.

B. Are there any potential problems or concerns with the proposed bifurcation or realignment of demand response programs into demand-side and supply-side resources? For example, are there any legal issues or other concerns such as missed opportunities for integration?

There are many potential problems and concerns that could arise from bifurcation if it is not done with a carefully constructed plan that allows for the transition to take place based on meeting defined needs, building a successful customer experience and with an appropriate cost effectiveness methodology to measure the program. The Commission’s goal of increasing the amount of DR to be bid and dispatched into the wholesale market is ambitious. Care must be taken to not dissuade DR providers and customers from continuing to participate in the market by rendering the process a difficult one.

Most DR products in the California market have served as demand-side products. As the Commission acknowledges, these programs have been very successful (See DR OIR page 3 paragraph 2 and page 6 Section 3). Care must be taken in any transition/realignment to retain the value of existing DR and to encourage the evolution of these programs or the development of

new programs to grow and capture more value in the future. Prematurely forcing all existing DR into a new, riskier and more complex model (i.e., supply-side DR) could inhibit DR growth and innovation, and even diminish the size and value of the DR portfolio.

Since there is limited experience bidding large amounts of DR as a supply-side resource in California and in other ISO/RTOs, it is likely that much will be learned from the initial experience of bidding and dispatching DR in the wholesale market that will lead to improvements in the future. PG&E is basing this caution, in part, on the experience it gained in bidding PDR in 2011 and 2012 in the PeakChoice program as well as trying to bid DR pilots as ancillary services in 2009 and 2011. In addition, it was apparent to PG&E as it began implementing its Intermittent Resources Management 2 (IRM2) pilot that simply bidding DR into the wholesale market by subLAP on a day-to-day basis is a significant challenge for DR providers because they have no experience doing so in California. Therefore, care must be taken to build the supply-side portfolio over time to allow customers and DR providers to gain experience and familiarity with the CAISO market.

A “benchmarking” of how DR is integrated in other ISO/RTOs may be a useful step in this proceeding. PG&E recently visited several other ISO/RTOs and observed potentially simpler ways to integrate DR into the wholesale market.

PG&E believes that there are potential legal issues associated with bifurcation. One key issue the Commission should consider is that it may be giving up some amount of jurisdiction over the DR that is ultimately bid into the wholesale market as a supply-side resource. As a wholesale market product, DR bid into the CAISO market could become FERC jurisdictional in whole or in part, which would diminish the Commission’s ability to shape DR products to meet California-specific needs and policies. As discussed in the response to Question 3 below, the ability of the Commission to regulate the use of BUGs during DR events could be impacted. There is also a risk of creating jurisdictional grey area for DR programs that are sometimes bid into the wholesale market and sometimes dispatched to meet distribution-level reliability needs.

The Commission should carefully consider the jurisdictional implications of its bifurcation proposal.

- C. The OIR describes an ongoing tension between the supply-side and demand-side requirements for demand response. The OIR states that demand response as resource adequacy resources are held to the same requirements as generation resources for system reliability and economic efficiency. Simultaneously, the needs and technical capabilities of customers and providers should also be considered in program design. How could the proposed bifurcation or realignment of supply-side and demand-side resources be designed to serve both sets of requirements?**

PG&E has specific suggestions on how reduce these tensions and is optimistic that they can be resolved in a reasonable manner.

Some of the major tensions between supply-side and demand-side requirements for DR pertain to the treatment of each type of DR in the context of RA rules, and the need to balance customer preferences and capabilities to improve integration into the CAISO market. Prior to the issuance of D.12-06-025, DR reduced the RA Requirement. Since then, DR is treated as RA supply that can meet the RA Requirement. As long as a DR program meets the operating requirements to qualify for RA it should continue to receive RA credit in one form or another. Under a regime of bifurcation, supply-side and demand-side DR should be treated differently to reflect their degree of integration with the wholesale market. Using this approach, qualifying supply-side DR should be treated as RA supply and qualifying demand-side DR should reduce the RA Requirement. A precedent for treating DR both ways has been established so this would be a logical differentiation.

The tension between customer capability and preference, and greater integration into the wholesale market is a more complicated issue. All parties must be open to looking for ways for both supply-side and demand-side DR to meet the needs of the CAISO while addressing customer needs. While some ideas may not prove to be successful, the Commission should encourage the consideration of innovative ideas that could lessen the “tension” noted in this question. These ideas are discussed in detail below.

1. Changes to CAISO Procedures and LSE Procedures for Demand-Side DR so that DR is More Easily Captured and Better Reflected in the CAISO Load Forecast and Operations.

Though PG&E's proposed definitions of supply-side and demand-side DR propose that demand-side DR not be bid into the wholesale market, improvements could be made to increase the visibility and utility of demand-side DR to the CAISO. Generally speaking, these should be relatively simple and low-cost ways for the CAISO to better incorporate demand-side DR into its operational processes. Some possibilities include:

- Develop a more direct way to incorporate scheduled demand-side DR into the CAISO forecast of CAISO load so that DR will reduce procurement in the Residual Unit Commitment (RUC) and other short-term unit commitments. This should build on the current procedures (developed over several years) used by the IOUs for reporting DR to the CAISO on a day-ahead and day-of basis for scheduled and available DR.
- Institute a method to “bid” a market price and MW amount at which DR would be dispatched, but no settlement and thus no requirement for registration of customers or transferring of meter data. This could be a non-discretionary (subject to program use-limitation restrictions) dispatch so this approach would be similar to the Price Responsive Demand (PRD) product recently created in PJM, and would provide the CAISO with more predictability in how demand-side DR would show up.
- Institute a trigger point in the CAISO emergency procedures where all DR programs would be dispatched, without being bid in as supply. Like the proposal immediately above, this would be non-discretionary (subject to program use-limitation restrictions) and would provide the CAISO with more predictability in how DR programs are dispatched.
- Integrate some simple, low-cost telemetry or some other method for providing visibility to the CAISO for demand-side DR so that the CAISO has real-time visibility of the dispatched demand-side DR. This approach would eliminate the cost of full integration with the CAISO but it would provide the CAISO with full visibility of dispatched DR.

These suggestions represent PG&E's initial thoughts to get the dialogue going. The Commission should consider soliciting additional ideas to better integrate demand-side DR into the wholesale market.

2. Changes to CAISO Requirements for Supply-Side DR (PDR, RDRR, PL), Particularly Around Registration, Bidding, Dispatch, Telemetry, and Settlement Should Be Considered to Expand the Set of Resources that Can Be Integrated in a Practical Manner.

There are several potential modifications to existing wholesale DR products that could reduce the cost and operational risk of providing these products while still meeting CAISO needs. Some examples are:

- Have PDR be called in an “all or nothing” manner (discrete) like RDRR
- Create a DLAP-level PDR product
- Simplify telemetry requirements
- Increase the minimum resource size for telemetry (now 10 MW)
- Simplify registration for mass market customers
- Ease master file update requirements for supply-side DR resources
- Eliminate the requirement to separate PDR participants by LSE
- Allow customers to be removed or added from a RDRR during a season (no “lockdown” of customers for a season)
- Reduce the number of subLAPs and have subLAPs rollup to LCAs

D. What role, if any, will the load impact protocol serve in this realignment? Are revisions required? Should the Commission develop separate sets of evaluation criteria and/or processes for the demand and supply sides?

The DR Load Impact Protocols (Protocols) have served a critical role in enabling the Commission, CEC, CAISO, IOUs and third-party aggregators to rigorously and empirically estimate the load-shedding capabilities of the State’s DR portfolio.

Importantly, when the Commission adopted the Protocols in D.08-04-050, it recognized that in order for them to be an effective, consistent and reliable evaluation framework for use in long-term resource planning and cost-effectiveness analyses, they would need to be flexible enough to estimate impacts for DR programs that would inevitably be evolving.^{1/} As such, the Protocols were designed with the express purpose of “allowing flexibility on the part of the load

^{1/} D. 08-04-050, p. 6.

impact evaluators to choose methodologies that are both feasible for and suitable to the particular type of DR activity.”^{2/}

The Protocols’ inherent flexibility ensures that the rigorous evaluations required in the future will be able to successfully adapt to the potentially novel characteristics of the State’s changing DR portfolio. Given the effectiveness and flexibility of the Protocols, PG&E firmly believes that they should continue to serve as the standard set of guidelines used for evaluating DR programs going forward. Since the Protocols have served their purpose well, PG&E finds no reason to justify revising the Protocols.

Furthermore, PG&E does not support developing multiple evaluation criteria and/or processes for supply- and demand-side DR resources, as they would likely create an artificial and misleading distinction between DR resources types. DR load impacts should be estimated and evaluated in the same manner whether the resource is classified as supply-side or demand-side because the absolute value of a DR megawatt is not changed by the proposed bifurcation. PG&E notes that the qualifying capacity (QC) methodology for wholesale DR is being addressed in the current RA proceeding, and that the Commission should coordinate with that proceeding on this issue.

IV. COST ALLOCATION

A. Current policy requires the utilities to identify, in their demand response applications, the rates used for cost recovery of each program and the justification for that rate. What, if any, additional information should the Commission require to ensure equitable cost allocation and why?

Recovery of the DR revenue requirement follows cost causation principles and ensures costs are recovered via distribution rates from all customers who either participate in or benefit from these programs. If DR program costs are collected as generation costs (as they are for AMP incentives), all costs would be allocated to bundled customers alone, even though all customers realized grid reliability benefits from DR load reductions.

^{2/} D. 08-04-050, p. 7.

PG&E has consistently proposed in other filings that, with the temporary exception of AMP incentives, DR revenue requirements should be recovered via distribution revenue balancing accounts and rates. In all decisions authorizing PG&E DR programs and budgets, the Commission has approved PG&E's proposed cost recovery via distribution rates. Nevertheless, according to the Scoping Memo, the Commission intends to investigate the appropriate cost recovery and ratemaking if DR program revenue requirements are bifurcated between supply-side and demand-side activities.

PG&E concurs that additional information may be necessary to evaluate appropriate DR program cost recovery and ratemaking because in the past, parties have argued cost allocation in different ways. Therefore, the Commission may want to consider the following information to inform their cost recovery decisions:

- **Types of costs incurred:** The parties may want to understand the nature of the costs themselves. For example, are these customer-service related costs (for program administration, evaluation & measurement, education and outreach), or are they incentive payments? As noted above, PG&E maintains that customer service costs are properly recovered in distribution rates.
- **Current DR RRQs recovered by existing balancing accounts:** Energy Division has previously requested the IOUs to provide an inventory of DR-related costs by application and/or balancing account. The IOUs can provide updated inventories, so the Commission can gain a complete view of how DR-related costs are recovered by distribution- and generation-related balancing and memorandum accounts.
- **Current participation rules for DR programs:** Parties have previously argued that customers who are ineligible to participate in IOU DR programs should not have to pay for them. Customer eligibility for DR programs may depend on customer size or service provider. There may be equity issues if DR program non-participants pay for DR programs via their retail distribution rates but cannot participate. In addition, there may be customers who can participate in a DR program funded via generation rates, but do not pay for such generation rates (an example is Direct Access (DA)/Community Choice Aggregation (CCA) customers participating in the AMP program).
- **DR program benefits:** As DR program participants reduce peak loads during events, grid reliability benefits are created that can be realized by program participants and non-participants (as peak capacity is reduced in

day-ahead and day-of wholesale markets). In addition, the increasing ability to call DR events on a local basis provides local reliability benefits. The Commission, through this rulemaking, may wish to seek out existing studies on DR-related grid reliability (via the Demand Response Measurement and Evaluation Committee (DRMEC)) or initiate studies to determine such benefits to the extent they would be relevant to cost allocation. Finally, the Commission could consider interactive benefits that might result when a supply-side program provides demand-side benefits (that is, local, distribution-related reliability benefits).

B. If the Commission bifurcates the demand response programs into demand-side and supply-side, does it need to revise its requirements for cost allocation in order to ensure equitable cost allocation? How and why?

The Commission established functional cost allocation principles in D.97-08-056. These principles continue to guide the cost allocation of IOU revenue requirements in the General Rate Cases. If the Commission bifurcates DR program revenue requirements, their cost allocation could follow these principles. As noted in the response to Question 2.a above, however, additional information would become useful in determining the final allocation of DR program costs.

C. In resource adequacy procurement, costs are allocated across the LSEs. If the Commission bifurcates demand response programs into demand-side and supply-side, should costs for supply-side procurement be allocated in the same fashion as resource adequacy procurement? If not, recommend other frameworks?

PG&E does not recommend adjusting RA procurement rules in the event that DR resources are bifurcated as supply-side and demand-side resources. Resource Adequacy credit (i.e., the RA MW of the DR resources) for demand-side resources recovered through distribution balancing accounts and rates would be allocated across LSEs; RA credit for supply-side resources recovered through generation balancing accounts and rates would be allocated solely to the IOU.

V. BACK-UP GENERATORS

- A. **In D.11-10-003, Conclusion of Law No. 5 states, “fossil-fueled emergency back-up generation resources should not be allowed as part of a demand response program for resource adequacy purposes.” The decision required the utilities to work with Commission staff to identify data regarding the use of back-up generators. The Utilities shall provide a description of data they have on customer back-up generator usage in demand response programs. We request other parties to share this information as well.**

PG&E has very little information regarding customer use of BUGs during DR events. The DRMEC conducted a process evaluation of the Critical Peak Pricing (CPP) and the Base Interruptible Program (BIP) for 2010^{3/}. PG&E does not collect data on BUG usage in DR programs.

- B. **If the Commission bifurcates demand response programs, how should the Commission develop rules that are consistent with the D.11-10-003 policy statement?**

If the Commission bifurcates DR resources into demand-side and supply-side, it could have a major impact on the Commission’s policy regarding the use of BUGs during DR events. As noted in PG&E’s response to Question 1.b, supply-side DR that is bid into the CAISO market will likely be FERC jurisdictional. Thus, if the Commission’s policy is to prohibit the use of BUGs during back-up generation, such a policy would be difficult to adopt since it would conflict with existing FERC policy. The FERC currently does not restrict BUGs in other markets like PJM, NYISO and ISO-NE, where FERC has jurisdiction in the capacity markets with DR participation.

To the extent the Commission may have jurisdiction to make rules and policy concerning BUGs, the policy must be based on substantial evidence regarding the use of BUGs, and should address the following three issues: (1) If the DR supported by BUGs is excluded from counting for RA purposes, what type of resource is likely to take its place and what are the environmental impacts of those resources compared to the use of BUGs? (2) What are the costs and benefits to

^{3/} *Process Evaluation of PG&E, SCE, and SDG&E’s Critical Peak Pricing and Base Interruptible Programs*, prepared by KEMA Inc., April 7, 2010, page 2-95.
http://www.calmac.org/publications/Final_DR_Report_4.7.10.pdf

ratepayers of excluding RA for DR that is supported by BUGs? (3) Would the California Air Resources Board (CARB) be better suited to adopt rules regarding BUGs that would apply irrespective of bidding or participation in the CAISO market?

C. What are the current laws and regulations regarding back-up generation, including those by the Air Resources Board, local air quality management districts and/or any other related regulatory body?

The CARB has issued regulations governing stationary compression ignition engines. The regulations, known as the Airborne Toxics Control Measure (ATCM), can be found in the California Code of Regulations, sections 93115.1, et seq.

Under the ATCM, engines fall into two general categories; (1) engines for “emergency” use, and (2) non-emergency engines, often referred to as “prime” engines. Section 93115.6 establishes operating requirements and emission standards for emergency engines over 50 horsepower. These requirements and standards vary somewhat, depending on whether the engine is “new,” “in-use” or for use in a DR program. Definitions of each type of engine are set forth in section 93115.4.

Regardless of the type of emergency engine, the owner or operator must obtain a permit to operate from the local air district. Local air districts may impose restrictions on the operation of emergency engines that are more stringent than the requirements of the ATCM. For example, the local air district may limit the amount of time such engines can operate during non-emergency situations (such as maintenance and testing). (See section 93115.6(a)(3)(C); 93115.6(b)(3)(C); 93115.6(c)(3).)

There are 35 local air districts in California. The CARB website provides a link to the regulations for each individual air district, which you can access by clicking here: [Local Air District Regulations](#)

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