

**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)

**REPLY OF SAN DIEGO GAS & ELECTRIC COMPANY (U 902 E) TO  
THE RESPONSES TO PHASE TWO FOUNDATIONAL QUESTIONS**

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**I. INTRODUCTION**

San Diego Gas & Electric Company (“SDG&E”) respectfully submits the following Reply to parties’ responses to the Phase Two Foundational Questions set forth in Attachment 1 to the *Joint Assigned Commissioner and Administrative Law Judge Ruling and Scoping Memo* (“Ruling”) issued on November 14, 2013 in the above-captioned proceeding.<sup>1</sup>

**II. REPLY COMMENTS TO THE RESPONSES TO PHASE TWO FOUNDATIONAL QUESTIONS**

**A. Bifurcation**

**1. Proposed Definitions and Need for Additional Research**

The majority of the parties’ responses support the concept of bifurcation if done correctly. However, there were common objections on how the Order Instituting Rulemaking 13-09-011 (“OIR”) defines demand-side programs as “customer-focused programs and rates” and supply-side resources as “reliable and flexible demand response that meets local and system

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<sup>1</sup> The following parties filed Responses to the Ruling on December 13, 2013: California Clean Energy Committee (“CCEC”); California Energy Storage Alliance (“CESA”); California Independent System Operator Corporation (“CAISO”); California Large Energy Consumers Association (“CLECA”); Center for Energy Efficiency and Renewable Technologies (“CEERT”); Clean Coalition; Consumer Federation of California (“CFC”); Direct Access Customer Coalition and Alliance for Retail Energy Markets (“DACC/AREM”); EnerNOC, Inc., Johnson Controls, Inc. and Comverge, Inc. (collectively, “Joint DR Parties”); Environmental Defense Fund (“EDF”); Marin Energy Authority (“MEA”); Natural Resources Defense Council (“NRDC”); Office of Ratepayer Advocates (“ORA”); Olivine, Inc.; Pacific Gas & Electric Company (“PG&E”); SDG&E; Sierra Club; Southern California Edison (“SCE”) and The Utility Reform Network (“TURN”).

resource planning and operational requirements.”<sup>2</sup> All demand response (“DR”) resources are customer-focused and demand-side programs can be flexible and reliable. SDG&E, along with several other parties, recommend clarification and refinement of the terms “demand-side programs” and “supply-side resources” with various parties offering alternative definitions.<sup>3</sup>

Regardless of the ultimate definition of the bifurcation terms, SDG&E urges the California Public Utilities Commission (“Commission”) to recognize the capacity value of load-modifying DR programs that are dispatched by the utility to meet local operating issues and distribution deferral.<sup>4</sup> In addition, SDG&E believes the capacity value of existing DR programs would need to be examined in light of bifurcation, consistent with the OIR’s direction that “there is no intention to diminish the value of retail demand response.”<sup>5</sup> The shift in paradigm should not suddenly devalue existing DR programs which continue to provide a deferral of generation capacity, even if it is measured differently going forward. As TURN correctly cautions, “the Commission should be careful that DR programs that cannot participate in CAISO markets and that do provide cost-effective demand response benefits are not unintentionally de-emphasized.”<sup>6</sup>

SDG&E supports PG&E’s recommendation of looking to other independent system operators (“ISOs”) and regional transmission organizations (“RTOs”) for ideas on how to effectively integrate DR into the California wholesale market. PG&E notes that “[a] ‘benchmarking’ of how DR is integrated in other ISO/RTOs may be a useful step in this

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<sup>2</sup> OIR at 17; Ruling, Attachment 1 at 1.

<sup>3</sup> See, e.g., SDG&E Response at 2; SCE Response at A-1-A-3; PG&E Response at 3-4; ORA Response at 1; CAISO Response at 4-6; Joint DR Response at 4-6; Sierra Club Response at 4-5; EDF Response at 5-6 and DACC/AREM Response at 2. See also CAISO “Demand Response and Energy Efficiency Roadmap: Maximizing Preferred Resources”, December 17, 2013 at 6. (<http://www.caiso.com/Documents/DR-EERoadmap.pdf>)

<sup>4</sup> Similar concerns were expressed in CCEC Response at 3 and Clean Coalition Response at 2.

<sup>5</sup> OIR at 15.

<sup>6</sup> TURN Response at 2.

proceeding.”<sup>7</sup> SDG&E agrees and in fact proposed a similar course of action in its prehearing conference statement:

In addition, the topics of program bifurcation and a roadmap for future demand response that are proposed to be in the Scope of this proceeding would be better addressed if research of other markets was available. Specifically, the 14 questions listed in the OIR could be more thoughtfully answered if detailed research were available on best practices in other independent system operator (ISO) markets.<sup>8</sup>

Similarly, TURN recognizes California’s need to optimize DR products and participation in CAISO markets by learning from other ISOs, noting that PJM Interconnection, LLC has mostly DR providing peak-shaving capacity, while DR in the Electric Reliability Council of Texas is primarily flexible capacity.<sup>9</sup> SDG&E respectfully requests the Commission to consider research on other regions as California pursues its goal to bifurcate DR.

## **2. Load Impacts**

SDG&E has serious concerns with CAISO’s proposal regarding the forecasting of the impact of DR on peak load in a bifurcated DR world. The current forecasting process adjusts the historical peak load for all DR programs, adding the DR load reductions back to the load in the historical data series. However, in a bifurcated DR world, CAISO foresees only the supply-side DR programs being added back to the load history. CAISO states that:

...as effective demand-side actions start to favorably reshape the overall net load curve and reduce peak demand, the ISO’s, CEC’s [California Energy Commission], and IOU’s [investor-owned utilities] load forecasting engines will capture the new load shape, resulting in a lower, flatter load than what would have been forecast but for consistent demand-side actions taken.<sup>10</sup>

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<sup>7</sup> PG&E Response at 10.

<sup>8</sup> R.13-09-011 SDG&E PHC Statement (October 14, 2013) at 2.

<sup>9</sup> TURN Response at 6.

<sup>10</sup> CAISO Response at 5.

CAISO would “add back the load impacts from supply-side demand response,” but the “anticipated load impact from demand-side demand response [would] not [be] ‘added-back.’”<sup>11</sup>

While ideally the forecasting engines should capture the new load shape created by load-modifying DR programs, in reality this may not actually occur. Forecasting models are complex and rely upon modeling assumptions and input assumptions other than just historical load data. Therefore, it is unclear what effect small historical load reductions will have on the load forecast. Because forecasts are often based on many years of historical data, load-modifying programs that have only been in place for a few years may have little or no effect on the forecasted load. Also, event-based load-modifying DR programs are not typically dispatched every day they are available. Therefore, they may not actually lower the system load for those days when they were available. If weather adjustments are made to the peak load, embedded load-modifying DR may be undercounted since it will not be called in cool years to the same extent as in hot years. If forecasting engines do not accurately capture the new load shape created by load-modifying DR resources these resources will not be accurately valued.

CAISO also states that they “would oppose a bifurcation policy that results in supply-side demand response being treated as demand-side demand response to avoid supply-side integration into the ISO market.”<sup>12</sup> Although SDG&E agrees with this statement, SDG&E believes that CAISO needs to make telemetry and load impact protocol accommodations for supply-side DR resources. For example, the SDG&E Summer Saver Air Conditioning (“A/C”) cycling program (“Summer Saver”) has the “right place, right time, right amount” attributes which CAISO believes supply-side resources should have.<sup>13</sup> Summer Saver can be dispatched on short notice (i.e. “right time”) and it can be dispatched by location (i.e. “right place”). Moreover, customers

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<sup>11</sup> *Id.* at 7-8.

<sup>12</sup> *Id.* at 10.

<sup>13</sup> *Id.* at 6.

are not allowed to override it, and as long as weather is accounted for, Summer Saver provides a consistent load reduction that is measurable and can be forecasted (i.e. “right amount”).

However, it will be difficult for Summer Saver to bid into the CAISO market unless telemetry requirements are changed and CAISO’s baselines are modified.<sup>14</sup> Achieving CAISO’s goal of all DR programs with supply-side characteristics participating in CAISO markets will require CAISO to modify the load impact protocols to implement settlement methods that are accurate for all customer classes.

### **B. Cost Allocation**

SDG&E agrees with PG&E and SCE that recovery of the DR revenue requirement should follow well-established cost causation principles and ensure costs are recovered from all customers who either participate in or benefit from these programs.<sup>15</sup> The major costs for load-modifying DR are direct or indirect incentive payments. These costs are based on avoided costs and should be allocated to all customers who benefit, not just eligible participants.<sup>16</sup> SDG&E supports ORA’s recommendation that cost recovery for utility load-modifying DR should be allocated to all customers since this allocation recognizes that all customers benefit from DR.<sup>17</sup> Furthermore, this approach is consistent with the direction provided by the OIR where the Commission stated their intention to

...retool demand response to align with the grid’s needs and enhance the role of demand response in [their] energy policy. Since the grid’s needs are no longer limited to shaving peak electricity load, the potential that

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<sup>14</sup> Bidding the Summer Saver into the day-of market on CAISO’s tariff is hindered because of CAISO’s telemetry requirement and the “meter before baseline” and “10-of-10 with same day adjustment baseline” underestimates load reductions when air conditioning load is increasing.

<sup>15</sup> PG&E Response at 14; SCE Response at A-7.

<sup>16</sup> SDG&E has concerns with cost allocation only to eligible participants, as supported by SCE (Response at A-7), since this approach has the potential to result in a larger burden on bundled customers when both bundled and departing load customers benefit from DR.

<sup>17</sup> ORA Response at 5-6.

demand response resources offer must be exploited to the fullest extent possible and desirable.<sup>18</sup>

Cost allocation should recognize that the benefits from DR are no longer limited to system resource adequacy (“RA”) benefits and should also recognize the other potential benefits, including the distribution level benefits identified by ORA.<sup>19</sup>

CAISO raises a legitimate concern regarding cost allocation of supply-side DR and its impact on competition.<sup>20</sup> SDG&E recommends that there be a distinction between the cost allocation for load-modifying and supply-side DR going forward. SDG&E agrees with CAISO that if the utilities are to participate in the supply-side DR market, the cost allocation for supply-side DR should be contained within participating customers to ensure a fair-playing field for all participants in the market. However, SDG&E does not believe that the best solution is to preclude utilities from competing in the supply-side DR market as proposed in CAISO’s option 2.<sup>21</sup>

EDF recommends that costs for programs that do not deliver expected benefits should be paid for by utility shareholders.<sup>22</sup> With regard to load-modifying DR, such a shareholder penalty would put a damper on the introduction of new programs and use of new technologies since there is always a great deal of uncertainty in rate-related DR as far as customer response. SDG&E believes EDF’s recommendation is punitive and would stifle innovation because customer behavioral response is not highly predictable and outside the utility’s control. If the Commission wishes to expand load-modifying DR with new DR rate options and use of new technologies to promote DR, it should reject EDF’s recommendation.

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<sup>18</sup> OIR at 15-16.

<sup>19</sup> ORA Response at 6.

<sup>20</sup> CAISO Response at 11-14.

<sup>21</sup> CAISO Response at 13.

<sup>22</sup> EDF Response at 13.

### C. Back-up Generation

Although SDG&E has gathered some data on the existing permitted back-up generators (“BUGs”) in its service territory, currently there is insufficient data to determine whether BUGs were used during past DR events. SDG&E shares Olivine’s belief that “[m]aintaining records of BUGs and or their usage is not directly within a utility’s mandate and thus they will not be the best source of data to inform Commission decisions.”<sup>23</sup> BUGs are governed by other state and federal authorities and enforcement of the rules mandated by those authorities should not be the utility’s responsibility. Furthermore, if most BUGs are associated with supply-side DR, the utilities would not have knowledge of customers’ DR actions if they are participating through an aggregator. SDG&E disagrees with NRDC’s suggestion to “require[ ] utilities to demonstrate that no DR program participants are using backup generators as a criterion for DR portfolio approval.”<sup>24</sup> Such a requirement would be difficult to demonstrate and could prove costly to ratepayers without providing much benefit in return.

SDG&E also notes the concern regarding proliferation of BUGs may be overstated since it will be difficult to add additional megawatt (“MW”) capacity of BUGs in California in the future due to the State’s Airborne Toxic Control Measure (“ATCM”) applicable to diesel engines. This measure requires that future BUGs would need to meet a very stringent diesel particulate matter (“PM”) emissions level of 0.01 g/hp-hr. This will necessitate installation of expensive diesel particulate matter filters on the engines and onerous permitting and recordkeeping/monitoring requirements for customers that would operate new BUGs. Furthermore, the BUGs would only be allowed to operate for up to 75 hours per year.

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<sup>23</sup> Olivine Response at Section IV.a (pages not numbered).

<sup>24</sup> NRDC Response at 10.



### III. CONCLUSION

SDG&E appreciates this opportunity to provide this Reply to the parties' responses to the Phase Two Foundational Questions and looks forward to working with stakeholders and the Commission on the future of demand response.

DATED at San Diego, California, on this 31st day of December, 2013.

Respectfully submitted,

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