



**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

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Order Instituting Rulemaking Regarding Policies,  
Procedures and Rules for Development of Distribution  
Resources Plans Pursuant to Public Utilities Code Section  
769.

Rulemaking 14-08-013  
(Filed August 14, 2014)

And Related Matters.

Application No. 15-07-002  
Application No. 15-07-003  
Application No. 15-07-005  
Application No. 15-07-006  
Application No. 15-07-007  
Application No. 15-07-008

**RESPONSE OF ENVIRONMENTAL DEFENSE FUND TO UTILITIES'  
APPLICATIONS FOR APPROVAL OF DISTRIBUTION RESOURCES PLANS**

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Dated: August 31, 2015

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**I. INTRODUCTION**

In response to Assembly Bill 327, Section 769, the California Public Utilities Commission (CPUC or Commission) issued an Order Instituting Rulemaking on August 14, 2014, culminating in a final guidance document (Final Guidance) for California’s three investor-owned utilities (IOUs) in developing their Distribution Resources Plan (DRP) proposals. Section 769 requires that the DRPs provide a roadmap for integrating cost-effective distributed energy resources (DERs) into planning and operation of the IOUs’ electric distribution systems.

Pacific Gas and Electric Company (PG&E), Southern California Edison (SCE), and San Diego Gas and Electric (SDG&E) filed their DRPs on July 1, 2015. These submissions present methods to plan the beneficial deployment of, and, if implemented well, market-driven investment in, DERs. In addition, the IOUs propose five demonstration pilots, in compliance

with Commission Final Guidance; SDG&E proposed a sixth innovative demonstration that focuses on examining a new approach to catalyzing the adoption of customer-sited storage.

Environmental Defense Fund (EDF) thanks the Commission for the opportunity to file this set of comments, as well as join a set of multi-party comments filed by the Natural Resources Defense Council.<sup>1</sup> EDF has actively participated in formal and informal discussions leading up to the utilities' DRP filings, most prominently as an early and engaged contributor to the More than Smart process, and as a party to the proceeding that resulted in these DRPs. EDF's deep commitment to the DRP proceeding reflects our enthusiasm for the potentially extraordinary benefits location-specific DER deployment could provide ratepayers, the environment, and the economy. In particular, substantial greenhouse gas emission reductions in the state are predicated on electrification of the transportation sector and renewable energy powering the electrical grid. Properly crafted and implemented DRPs could play a critical role in securing these outcomes, as envisioned by the CPUC Final Guidance, which states:

*...the underlying rationale for promoting increased deployment of the DERs specified by statute is that they have a critical role to play in meeting California's policy of significantly reducing GHG emissions from the State's electricity and transportation systems.<sup>2</sup>*

EDF is enthusiastic about the progress reflected in the DRP filings, which demonstrate that the

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<sup>1</sup> *Response of Bioenergy Association of California, California Association of Sanitation Agencies, California Energy Efficiency Industry Council, Center for Sustainable Energy, Clean Coalition, Community Choice Partners, Community Environmental Council, Comverge, Inc., EnergyHub, EnerNOC, Inc., Enphase Energy, Environmental Defense Fund, Local Government Sustainable Energy Coalition, Marin Clean Energy, Natural Resources Defense Council, San Francisco Bay Area Regional Energy Network, Solar Energy Industries Association, Southern California Regional Energy Network, The Utility Reform Network, Vote Solar, and the World Business Academy to the Applications for Approval of Distribution Resources Plans by Pacific Gas and Electric Company (U 39 E), Southern California Edison Company (U 338 E), and San Diego Gas & Electric Company (U 902 E), Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769 and Related Matters, R. 14-08-013, et al., (filed Aug. 31, 2015).*

<sup>2</sup> *Assigned Commissioner's Ruling on Guidance for Public Utilities Code Section 769 – Distribution Resource Planning, Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769, R. 14-08-013 at 3 (filed Feb. 6, 2015).*

IOUs are taking DER integration and utilization seriously. Though we are optimistic about the DRPs' potential to help achieve important clean energy and climate goals, EDF encourages additional considerations and refinements to the process moving forward.

In these comments, EDF does the following: (a) identifies particularly meritorious elements contained in the DRPs; (b) suggests regulatory reforms; (c) calls for supplemental opportunities for the Commission and parties to obtain additional information and clarity related to the filed plans; and (d) identifies areas where more work needs to be done as part of future DRP submissions.

The primary points made by EDF in these comments are:

1. The Commission should craft regulatory rules that form the basis for a fully competitive marketplace to emerge, which could include, but is not limited to the following:
  - non-utility DER providers having low-cost access to “market” information;
  - non-utility providers having access to potential DER customers; and
  - IOUs being able to profit from a competitive DER market.
2. The Commission should police against the development of a gold-plated grid. All of the utilities indicate that DER integration will trigger significant investments. The Commission should create transparent processes that enable distribution system investments to be avoided by DER assets wherever the DER solution is more cost-effective and supportive of state policy goals.
3. The DRPs should be realigned to seize the opportunity to incent DERs that provide net benefits to the grid, the customer investing in DERs, and to IOU shareholders.

## II. DISCUSSION

### A. The IOUs Quickly Produced Solid Plans

In less than a year the IOUs pulled together data, analyses, and proposals that, as they are honed and implemented, could serve to usher in a more market-based, environmentally sustainable grid. EDF applauds this fastidious effort, particularly noting the following highlights:

- EDF concurs with SCE’s sentiment that the Commission should adopt “a regulatory framework that promotes competition” and “the market should dictate the technology solutions that provide the greatest value to all customers and drive innovation.”<sup>3</sup> In this context, we encourage the Commission to explore advancing these concepts as part of analyses and pilots being pursued in the Integrated Demand Side Resources (IDSR) proceeding.<sup>4</sup>
- EDF strongly agrees with SDG&E that continuing rate reform is necessary to enable the distribution system to be effectively used by both service providers and end-use customers, and that “customers should pay for the services they receive and be compensated for the services they provide.”<sup>5</sup> We urge the Commission to instruct the utilities to advance rate reform efforts that achieve this goal in all relevant proceedings, including the IDSR proceeding.
- EDF is very favorably inclined towards SDG&E’s proposed additional pilot, “New Business Utility Model for DER Integration,”<sup>6</sup> which offers a critical pathway to explore

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<sup>3</sup> *Application of Southern California Edison Company (U 338-E) for Approval of its Distribution Resources Plan*, A. 15-07-002 at 9 (filed Jul. 1, 2015).

<sup>4</sup> *Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning, and Evaluation of Integrated Demand Side Resource Programs*, R. 14-10-003 (filed Oct. 2, 2014).

<sup>5</sup> *Application of San Diego Gas & Electric Company (U 902 E) for Approval of Distribution Resources Plan*, A. 15-07-003 at 117 (filed Jul. 1, 2015).

<sup>6</sup> *Id.* at 85.

new market-based revenue streams to spur the DER market. EDF believes this is an opportune time for the Commission to endorse a fee-for-services pilot that includes a DER-friendly optional tariff. As discussed later in these comments, we encourage the Commission to broaden and deepen SDG&E's proposed pilot, as a means to comprehensively explore business models that can fully animate beneficial DER deployment.

- EDF applauds PG&E's focus on Central Fresno as the location for multiple pilots,<sup>7</sup> and encourages the utility to include comprehensive exploration of how best to deliver DER benefits to low-income customers and small businesses – in terms of lower bills, technology access, and reduced polluting air emissions – as part of this package of pilots. It is important for PG&E to begin outreach to identify enthusiastic local civic leaders to be partners and engage them in the development and roll-out of the pilot.

#### **B. The Commission Should Consider Regulatory Reforms**

Though we are optimistic about the DRPs' potential to help achieve important clean energy and climate goals, we ask the Commission to guard against inadvertently creating potentially adverse outcomes. Of particular concern to EDF are unintended consequences that could arise from the DRP process. Accordingly, the Commission should consider the following:

1. Careful attention should be paid to crafting regulatory rules that form the basis for a fully competitive marketplace to emerge, which could include, but is not limited to the following:
  - non-utility DER providers having low-cost access to “market” information;
  - non-utility providers having access to potential DER customers; and

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<sup>7</sup> See, e.g., *Electric Distribution Resources Plan Application of Pacific Gas and Electric Company (U 39 E)*, A. 15-02-006 at 136 (filed Jul. 1, 2015).

- IOUs being able to profit from a competitive DER market.
- 2. The Commission should police against the development of a gold-plated grid. All of the utilities indicate that DER integration will trigger significant investments. The Commission should create transparent processes that enable distribution system investments to be avoided by DER assets wherever the DER solution is more cost-effective and supportive of state policy goals.
- 3. The Commission might consider a new approach to establishing priority solutions for distribution investments. Akin to the “loading order” for delivery energy, whereby clean and cost-effective solutions are the preferred resources, the DER solutions that are similarly cost-effective and supportive of state policy goals ought to be deemed, a priori, the preferred solution for the distribution system.
- 4. Optimal DER integration should allow for improved electricity services performance and customer choice, with infrastructure costs lower than traditional centralized options, as well as a reduced environmental footprint. Conversely, DER integration that is not properly channeled will result in utility-controlled procurement, a grid that is plagued by unnecessarily expensive DERs and overly built-up distribution infrastructure, underutilized renewable generation capacity, and excessive investment in and use of fossil fuel-ramping.
- 5. Opportunities to explore innovative strategies to recover utility service costs and realign incentives towards economic and environmental sustainability should be seized.

Commission staffers Kristin Ralff-Douglas and Marzia Zafar<sup>8</sup> recently examined issues associated with utility compensation and cost-recovery, stating that,

*The historic view of the utility as a natural monopoly wasn't tested until recently, because in the past it was clear that the scale of the effort that needed to be undertaken to supply every customer with electricity required a monopolistic enterprise. However, while the scale of the current grid expansion efforts may not necessarily be any less monumental than past efforts, the localized implementation opportunities do not necessarily require a centralized system or source of funding. In addition, many customers want to participate more fully in the grid, and to achieve the state's increased greenhouse gas emission reduction goals most will need to participate more fully.*<sup>9</sup>

Ralff-Douglas and Zafar describe three different potential utility roles for the future.<sup>10</sup>

EDF believes that the DRP pilots, in coordination with time of use (TOU) and integrated demand side resources (IDSR) demonstrations, ought to explore multiple utility business models, including those identified by Ralff-Douglas and Zafar.<sup>11</sup> However, as currently constructed, the DRPs are preoccupied with the traditional compensation model, in which the IOUs dominate and control DER deployment; EDF is concerned that the DRP pilots will be similarly myopic absent additional direction from the Commission.

With the notable exception of the SDG&E New Utility Business Model demonstration,<sup>12</sup> the proposed pilots are aligned with the Utility Command and Control model described by Ralff-Douglas and Zafar.<sup>13</sup> EDF does not believe that the traditional approach is appropriate in an era of declining volumetric electricity sales and rapid

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<sup>8</sup> Kristin Ralff-Douglas and Marzia Zafar, *Electric Utility Business and Regulatory Models*, California Public Utilities Commission Policy & Planning Division (Jun. 8, 2015), <http://www.cpuc.ca.gov/NR/rdonlyres/929E2B29-F72F-4BBD-9CD1-2C06DF249785/0/PPDElectricUtilityBusinessModels.pdf>.

<sup>9</sup> *Id.* at 14.

<sup>10</sup> *Id.* at 18-24.

<sup>11</sup> *Id.* at 15-23.

<sup>12</sup> *Application of San Diego Gas & Electric Company (U 902 E) for Approval of Distribution Resources Plan*, A. 15-07-003 at 85-88 (filed Jul. 1, 2015).

<sup>13</sup> Kristin Ralff-Douglas and Marzia Zafar, *Electric Utility Business and Regulatory Models*, California Public Utilities Commission Policy & Planning Division at 15 (Jun. 8, 2015), <http://www.cpuc.ca.gov/NR/rdonlyres/929E2B29-F72F-4BBD-9CD1-2C06DF249785/0/PPDElectricUtilityBusinessModels.pdf>.



growth of DER assets on the grid. Instead, EDF believes that innovative business models should be explored.

EDF's view, based in part on the CPUC Energy Division's own analysis, as described above, is that the traditional Command and Control model will result in a stilted approach to the elements of DRP planning (i.e., capacity analysis, locational net benefits analysis, data access, pricing/tariffs/contracts, and demonstrations). Consequently, the Commission should direct DRP efforts to begin advancing new models and exploring transition strategies while learning by doing. With this goal in mind, EDF suggests avoiding proposed activities that advance the utility Command and Control model, including utility-managed contracts for DER, while encouraging those utility-proposed activities that enlighten future models for cost recovery and DER optimization by allowing for robust, informed, low-transactional-cost market-based competition to provide DER solutions to the needs of customers and the distribution grid.

### **C. Additional Near-Term Opportunities Should be Provided for Parties to Obtain Supplemental Information**

EDF recommends that the Commission instruct the IOUs to provide methods for parties to obtain further information on their DRP submissions beyond what they have already done, and engage in further conversations about planning approaches, particularly with potential DER providers. These interactions should be oriented towards ascertaining stakeholder views on key content contained in the plans and identify any notable information gaps that need to be addressed to avoid undue transactional costs for the DER industry. Responses from the IOUs should take the form of supplemental filings, after the provision of meaningful opportunities for parties to offer feedback to the Commission and the IOUs on aspects of the DRPs and obtain

answers to questions, as well as after the issuance of additional CPUC guidance. EDF recommends that the IOUs cooperate with parties in their requests for additional data.

Pursuant to this, EDF had identified near-term pathways that the Commission should provide in order to advance the following topics:

*IOUs Should Produce Supplemental Filings*

- Currently, there is no uniform definition of “high DER penetration” across the three IOUs. SCE assumed that the highest 1% of distribution circuits containing interconnected distributed generation (DG) were the “circuits with high levels of penetration” that needed to be examined, as no numeric level of penetration was stipulated by the Final Guidance.<sup>14</sup> PG&E, on the other hand, essentially evaluated all of its circuits,<sup>15</sup> while SDG&E assumed circuits with greater than 25% DERs to be the “circuits with high levels of penetration.”<sup>16</sup> The utilities should work with the Commission and parties to develop a common understanding of the definition of different penetration levels, as well as possible methods to examine “high” penetration levels.
- The extent to which the IOUs need to control DERs to maximize their benefit to the grid is raised in different ways in all of the applications. While utility-controlled DERs, and DER rollout, can be beneficial to the grid and customers, so too can DERs that emerge more organically. To accommodate the push and pull of DERs, the DRPs should create a process to develop performance standards for all DERs,

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<sup>14</sup> *Application of Southern California Edison Company (U 338-E) for Approval of its Distribution Resources Plan*, A. 15-07-002 at 27 (filed Jul. 1, 2015).

<sup>15</sup> *Electric Distribution Resources Plan Application of Pacific Gas and Electric Company (U 39 E)*, A. 15-02-006 at 60 (filed Jul. 1, 2015).

<sup>16</sup> *Application of San Diego Gas & Electric Company (U 902 E) for Approval of Distribution Resources Plan*, A. 15-07-003 at 117 (filed Jul. 1, 2015).

regardless of their origin, configuration, or extent of utility control. One such standard could require existing grid assets to be able to host any and all DERs desired by customers without a concomitant requirement to continually gold plate the grid. The importance of the issue merits significant examination and discussion in all three IOU service territories.

- The issue of DER control raises the broader question about the DER capabilities assumed in the IOU analyses, notably the Integration Capacity Analysis (ICA) and DER growth forecasts. As alluded to above, while there are suggestions of the need for standards,<sup>17</sup> there is no mention of the specific capabilities needed to achieve higher levels of DER penetration and utilization without compromising existing distribution infrastructure. Rather, by omission, the IOUs appear to presume that the DERs will never be capable of connecting to the grid without increasing cost; while EDF appreciates that most DER deployment thus far has not been coordinated in a way that maximizes grid-scale benefits, it is technically feasible and potentially cost-effective (even if not the solution preferred by the IOUs) to establish performance requirements and price signals to spur deployment of DER capabilities that reduce, rather than enhance, grid infrastructure needs.
- In addition to shedding light on assumption about DER capabilities, the utilities' methods to forecast DER and load growth at the feeder level merit further

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<sup>17</sup> *Application of San Diego Gas & Electric Company (U 902 E) for Approval of Distribution Resources Plan*, A. 15-07-003 at 21 (filed Jul. 1, 2015); *Electric Distribution Resources Plan Application of Pacific Gas and Electric Company (U 39 E)*, A. 15-02-006 at 38 (filed Jul. 1, 2015); *Application of Southern California Edison Company (U 338-E) for Approval of its Distribution Resources Plan*, A. 15-07-002 at 31 (filed Jul. 1, 2015).

examination. For example, SDG&E and PG&E relied on LoadSEER,<sup>18</sup> while SCE used the CYME Distribution Analysis and Scripting Tool with Python modules.<sup>19</sup> The strengths and weaknesses of these methods should be detailed, including an uncertainty analysis. Likewise, it appears that the approaches are largely scenario-based; when available, more granular data may provide for better forecasting accuracy. Furthermore, there is room for improving the best practices of modeling; in addition to greater attention to uncertainty analyses. EDF would like to see active reconciliation between top-down (e.g., system wide) and bottom-up (e.g., distribution planning area) forecasting approaches.

- Given the numerous related proceedings that are occurring concomitantly, it is important for the Commission to pay attention to the different intersections between these dockets. For example, the DRP will inform the IDSR proceeding, and should also be relevant to the EV, storage, and residential rate reform proceedings.
- It would be worthwhile to develop a broad understanding of why PG&E's ICA is significantly more detailed, analytical, and complete than those conducted by SDG&E and SCE.<sup>20</sup> EDF appreciates that the IOUs were at different starting points, had short timelines to produce the DRPs, and made good faith efforts to coordinate methods. However, there remains a considerable difference in the approaches used, and the state of development and planned improvements; IOU

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<sup>18</sup> *Application of San Diego Gas & Electric Company (U 902 E) for Approval of Distribution Resources Plan*, A. 15-07-003 at 32-33 (filed Jul. 1, 2015); *Electric Distribution Resources Plan Application of Pacific Gas and Electric Company (U 39 E)*, A. 15-02-006 at 20 (filed Jul. 1, 2015).

<sup>19</sup> *Application of Southern California Edison Company (U 338-E) for Approval of its Distribution Resources Plan*, A. 15-07-002 at 32 (filed Jul. 1, 2015).

<sup>20</sup> It is not clear to EDF that SDG&E provided sufficient locational precision to meet the Commission's DRP application requirements.

efforts should be at a common minimum level, as is needed to meet the intent of Commission Final Guidance.<sup>21</sup>

- SCE identified the need to properly plan for EV infrastructure, and discussed the policy, regulatory, and market barriers associated with doing so.<sup>22</sup> Given the importance of electrifying the transportation sector to achieving the state’s GHG emission reductions goal, all three IOUs should deepen their discussions of how they propose to beneficially incorporate EV adoption and deployment into their DRPs. This is particularly important given that all three IOUs have filed applications designed to increase the amount of EV charging infrastructure as a way to meet important state goals.<sup>23</sup>
- PG&E has developed pathways to streamline the interconnection process.<sup>24</sup> The lessons learned from that utility’s efforts should be fully shared with SCE and SDG&E, and incorporated into their DRPs. A key element of this process is the adoption of minimum technology performance standards; there ought to be a

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<sup>21</sup> See, e.g., *Assigned Commissioner’s Ruling on Guidance for Public Utilities Code Section 769 – Distribution Resource Planning*, Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769, R. 14-08-013 at 3 (filed Feb. 6, 2015) (“the intent [of the DRPs] is to create a set of *mutually supportive* tools that detail how much DER can be deployed under a business as usual grid investment trajectory, and build the capabilities to compare portfolios of DERs as alternatives to traditional grid infrastructure”) (emphasis added).

<sup>22</sup> *Application of Southern California Edison Company (U 338-E) for Approval of its Distribution Resources Plan*, A. 15-07-002 at 179-181 (filed Jul. 1, 2015).

<sup>23</sup> *Application of San Diego Gas & Electric Company (U 902-E) for Authority to Implement a Pilot Program for Electric Vehicle-Grid Integration*, at 3 (Apr. 11, 2014) (stating that the VGI program is intended to lead to “increased adoption of EVs and increased zero emission miles driven per EV in a grid-friendly and sustainable manner”); *Application of Southern California Edison Company (U 338-E) for Approval of its Charge Ready and Market Education Programs*, A. 14-10-014 at 5 (filed Oct. 30, 2014) (“long dwell-time charging in these market segments [targeted by SCE] helps reduce range anxiety, increase electric vehicle miles driven, improve access to charging in MUDs, reduce air pollution, and may, in the future, provide a way to utilize excess renewable energy generated during the day”); *Pacific Gas and Electric Company’s (U 39 E) Electric Vehicle Infrastructure and Education Program Application*, A. 15-02-009 at 3 (filed Feb. 9, 2015) (“California’s bold EV and climate goals can only be achieved with dramatic acceleration of EV deployment that will rely on collaboration among all stakeholders, utilities and non-utilities alike...by this application, PG&E is taking on this challenge”).

<sup>24</sup> *Electric Distribution Resources Plan Application of Pacific Gas and Electric Company (U 39 E)*, A. 15-02-006 at 187 (filed Jul. 1, 2015).

relationship between performance attributes (e.g., visibility to the California Independent System Operator) and capabilities (e.g., dispatchability) and the speed of interconnection. For example, rooftop photovoltaic (PV) with smart inverters is less problematic than PV with inverters in common use today; the Rule 21 process ought to be informing the assumptions used in DRP analyses.

*The Commission Should Issue Updated Guidance*

- The IOUs refer to the need for locational targeting of DERs, as per California Public Utilities Code 769, but it is not clear how this goal will be achieved.<sup>25</sup> This issue should be examined in the IDSM proceeding, as well as advanced in all relevant Commission proceedings. That is, whenever a utility files an application in which locational targeting is an apt issue – related to energy efficiency, demand response, storage, distribution infrastructure investment, and/or rates – the utility applicant should propose explicit mechanisms to advance such targeting.
- While, as previously discussed, EDF strongly supports SDG&E’s New Business Utility Model pilot, we question why it is limited to storage. Given the potentially substantial insights that could be gleaned from this pilot, we recommend that the Commission require SDG&E to seek advice from affected stakeholders potentially interested in the pilot, and broaden it to the extent possible to comprehensively examine a full range of potential DER measures, associated revenue streams, and business models.

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<sup>25</sup> *Application of Southern California Edison Company (U 338-E) for Approval of its Distribution Resources Plan*, A. 15-07-002 at 2 (filed Jul. 1, 2015).

#### **D. The Commission Should Order IOUs to Include a Number of Elements in Future Filings**

Given the time it will take to effectively grapple with multiple complex topics, EDF appreciates that a number of important issues will have to wait to be addressed in the IOUs' next round of DRP filings, as recommended by the IOUs.<sup>26</sup> The Commission should require the IOUs to make the following considerations in their next round of DRP submissions:

- As guided by the Commission, the IOUs generally pointed to a common set of goals, including cost-effectively integrating DERs onto the grid.<sup>27</sup> But none of the utilities offered specific metrics to determine whether or not there is progress towards achieving identified goals, and some potentially meritorious goals appear to be orphaned, such as measuring environmental outcomes and associated equity consequences in the planned demonstrations. EDF recommends identification of goals and metrics to measure achievement of those goals. Collectively, the goals should result in net system benefits, which itself is an outcome that should be tracked and reported.
- EDF generally supports the need for DER capability/performance standards, including those related to voltage regulation, power harmonics mitigation, minimization of electric service disruptions during catastrophic events, and other variables.<sup>28</sup> However, care should be taken to develop and adopt a uniform set of

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<sup>26</sup> *Electric Distribution Resources Plan Application of Pacific Gas and Electric Company (U 39 E)*, A. 15-02-006 at 209-214 (filed Jul. 1, 2015); *Application of San Diego Gas & Electric Company (U 902 E) for Approval of Distribution Resources Plan*, A. 15-07-003 at 132 (filed Jul. 1, 2015).

<sup>27</sup> See, e.g., *Application of San Diego Gas & Electric Company (U 902 E) for Approval of Distribution Resources Plan*, A. 15-07-003 at 1 (filed Jul. 1, 2015).

<sup>28</sup> *Electric Distribution Resources Plan Application of Pacific Gas and Electric Company (U 39 E)*, A. 15-02-006 at 183 (filed Jul. 1, 2015); *Application of San Diego Gas & Electric Company (U 902 E) for Approval of Distribution Resources Plan*, A. 15-07-003 at 118 (filed Jul. 1, 2015).

standards across the three IOU service territories, and not to inadvertently establish standards that block adoption of beneficial DERs, or create onerous transactional costs. Likewise, standards should be considered at the DER portfolio/system level at a variety of spatial scales of aggregation, as appropriate for the various goods (e.g., energy, resource adequacy) and services (e.g., frequency regulation) to be potentially provided by DER portfolio. As well, the examination of performance capabilities ought to view combinations of DERs as portfolios, not individual technologies, with a goal of establishing requirements that can be met by combinations of DERs. IOU assumptions about the operating characteristics and capabilities of DERs should be fully transparent; and a standard-setting process open to stakeholders should be launched, perhaps led by the California Energy Commission.

- It is not clear what types of dynamic modeling the ICA analyses undertook. Future, truly dynamic, ICA modelling ought to inform investigation of capability and performance standards through iterative model runs that seek to find a balance between costs associated with meeting DER standards and additional productivity of existing and planned infrastructure to serve as a DER host.
- The IOUs should ultimately place a dollar value on avoided costs from investment deferrals, so as to provide a transparent metric to compare DERs' cost-effectiveness with traditional means of meeting load. Avoided costs are considered in cost-effectiveness protocols; however, it is not clear that the evaluation of cost-effectiveness will yield prices that are at a level that adequately catalyze DER innovation.



- The IOUs appear to put more emphasis on contracts than tariffs as a means to incentivize DER deployment in specific locations. For example, SCE “does not envision the DRP modifying the customer rate tariffs, but rather the balance of the company tariffs that address design, interconnection rules, etc.”<sup>29</sup> Similarly, SDG&E favors contracts over tariffs, asserting that the former “may be a more effective means of providing incentives related to benefits at a specific location and in a given moment in time.”<sup>30</sup> Although EDF is generally inclined towards tariffs, we more broadly believe that the merits of any incentive mechanism, or set thereof, should be carefully examined prior to adoption. As such, EDF recommends that the Commission fully investigate possible incentive approaches, in the context of different situations, in advance of the utilities’ next DRP filings. The Commission’s recent consideration of future utility business models supports this step. Simply put, the IOUs ought to demonstrate more vision for alternative cost recovery mechanisms; the DRP demonstrations, as proposed, do not do so.
- In its application, PG&E points to the need to “apportion the investments, costs and risks equitably across all participants in the energy value chain.”<sup>31</sup> EDF notes that utility shareholders should be included in this apportionment process, as should any DER adopter that causes utility costs. As expressed earlier in these comments, EDF expects that wise DER deployment can reduce, rather than increase, system infrastructure costs. Finally, the concept of “reliability” merits new scrutiny in a

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<sup>29</sup> *Application of Southern California Edison Company (U 338-E) for Approval of its Distribution Resources Plan*, A. 15-07-002 at 131 fn. 164 (filed Jul. 1, 2015).

<sup>30</sup> *Application of San Diego Gas & Electric Company (U 902 E) for Approval of Distribution Resources Plan*, A. 15-07-003 at 6 (filed Jul. 1, 2015).

<sup>31</sup> *Electric Distribution Resources Plan Application of Pacific Gas and Electric Company (U 39 E)*, A. 15-02-006 at 3 (filed Jul. 1, 2015).

system in which many customers have access to backup power or effective energy management systems. For example, several questions are now timely:

- How are private costs incorporated into reliability cost-effectiveness metrics?
- At what level should outages be tracked (i.e., in front of or behind the meter)?
- Would it be more economically efficient for customers to be offered different rate schedules that reflect their desired and delivered reliability levels, similar to standby rates?

EDF acknowledges that these questions might be beyond the scope of the current DRP applications. However, we believe the Commission should consider launching a separate proceeding about securing utility cost recovery in an era when DER deployment promises to reduce revenues from volumetric rates, since no current proceeding does so in an integrated and comprehensive fashion.

### III. CONCLUSION

EDF thanks the Commission for the opportunity to provide comments in response to Commissioner Florio's Proposed Decision and looks forward to continued engagement with the CPUC and other stakeholders as this proceeding continues to develop.

Respectfully signed and submitted on August 31, 2015.

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