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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning, and Evaluation of Integrated Distributed Energy Resources.	Rulemaking 14-10-003 (Filed October 2, 2014)

COMMENTS OF ENVIRONMENTAL DEFENSE FUND ON THE AMENDED SCOPING MEMO AND RULING OF ASSIGNED COMMISSIONER AND ADMINISTRATIVE LAW JUDGE

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I. INTRODUCTION

Pursuant to the Amended Scoping Memo issued on September 1,[1] Environmental Defense Fund (EDF) offers the following comments, which focus on the revised utility incentive mechanism pilot presented by Commissioner Florio. While EDF appreciates the additional thought the Commissioner has undertaken, and believes the animating sentiments behind the proposed pilot are well-placed, we remain hesitant to give our full support to it due to significant concerns. Specifically, EDF believes that:

- The proposed distributed energy resource (DER) incentives pilot is not likely to be sufficient to overcome the numerous barriers to the increased DER adoption that Commissioner Florio describes;
- The Integrated Distributed Energy Resource (IDER) proceeding should be integrated with, rather than mirror, the demonstration projects in the Distribution Resource Plan (DRP) proceeding, such that they are mutually informing and together address the need for testing a comprehensive set of revenue opportunities for investor-owned utilities (IOUs) and DER investors.

[1] *Assigned Commissioner's Ruling Introducing a Draft Regulatory Incentives Proposal for Discussion and Comment,* Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning, and Evaluation of Integrated Distributed Energy Resources, R. 14-10-003 (filed Apr. 4, 2016).

- The plan laid out by the Commission should include approaches to test additional, more dynamic, and market-oriented incentives, whether it is in the IDER or DRP proceeding[2] or elsewhere, such as the electric vehicle (EV)[3] and residential time-of-use (TOU) pilots[4]; and

- Measurements of benefits should include positive impacts on society, including current and future ratepayers. Therefore, EDF strongly supports using a Total Resource Cost (TRC) test to evaluate DERs.

II. DISCUSSION

1) *Would the attached pilot proposal accomplish its stated purpose, to test how an earnings opportunity affects the utilities' distributed energy resources sourcing behavior?*
2) *Would an incentive program such as that described in the attached proposal achieve the objective of promoting the cost-effective deployment of distributed energy resources?*

Yes, the proposed pilot has the potential to incent the IOUs to adopt cost-effective DER solutions in support of the distribution grid. In particular, EDF applauds the provision of a public process to evaluate proposals from IOUs, including a workshop and formation of a distribution planning advisory group (DPAG) that is supported by a professional, independent engineer. This requirement will inject the IDER process with much-needed objectivity, and will help all members of the DPAG, including those without engineering expertise, to be informed and confident that their questions will be addressed by the IOUs.

However, EDF is concerned that there remain obstacles and design elements that may prevent the pilot from successfully incenting utilities to choose customer-owned DER solutions in lieu of distribution system infrastructure investments that become part of the ratebase. For

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[2] *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 (Aug. 14, 2014).
[3] *Application of San Diego Gas & Electric Company (U902E) for Approval of its Electric Vehicle-Grid Integration Pilot Program,* A. 14-04-014 (filed Apr. 11, 2014); *Application of Southern California Edison Company (338-E) for Approval of its Charge Ready and Market Education Programs,* A. 14-10-014 (Oct. 30, 2014); *In the Matter of the Application of Pacific Gas and Electric Company for Approval of its Electric Vehicle Infrastructure and Education Program (U39E)*, A. 15-02-009 (filed Feb. 9, 2015).
[4] *Decision on Residential Rate Reform for Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company and Transition to Time-of-Use Rate,* Order Instituting Rulemaking on the Commission's Own Motion to Conduct a Comprehensive Examination of Investor Owned Electric Utilities' Residential Rate Structures, the Transition to Time Varying and Dynamic Rates, and Other Statutory Obligations, R. 12-06-013 at 149-171 (Apr. 21, 2015).

instance, major barriers recognized by Commissioner Florio ("other parties spoke to a number of additional barriers to the use of DERs well beyond the financial – the ease and familiarity of traditional approaches, the perceived risks of DERs, institutional barriers, cultural inertia and conservatism, historical expertise, the need for new staff competencies and internal processes, engineering and operational uncertainties, lack of control, and general anxiety toward change"[5]) – will supersede the carrot that this pilot presents. For this reason, EDF believes this pilot is only justifiable when planned as a step on a longer-term pathway designed to provide a more robust set of incentives leading to decision-making by utility distribution system planners that prioritizes clean DER resources. As EDF has described in prior comments,[6] and as discussed more below, we therefore believe the pilot incentive should be structured differently. Rather than the fixed percentage calculation described by Commissioner Florio, incentives should be based either on services rendered, or a payment that is predicated on performance per a set of robust metrics designed to hold utilities accountable for meeting goals that will further state climate and clean energy policies.

Furthermore, several efforts are currently operating in parallel with the IDER docket (e.g,, DRP demonstration projects A & B,[7] residential opt-in time-of-use (TOU) rate pilots, and electric vehicle pilots) and several more that are due to commence in the coming months (e.g,,

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[5] *Amended Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge: Attachment – Revised Assigned Commissioner Proposal for Distributed Energy Resource Incentives*, Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning and Evaluation of Integrated Distributed Energy Resources, R. 14-10-003 at A-4 (Sep. 01, 2016).

[6] *Opening Comments of Environmental Defense Fund on the Assigned Commissioner's Ruling Introducing a Draft Regulatory Incentives Proposal for Discussion and Comment,* Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning and Evaluation of Integrated Distributed Energy Resources, R. 14-10-003 (filed May 09, 2016).

[7] *Assigned Commissioner's Ruling on Guidance for Public Utilities Code Section 769 – Distribution Resource Planning: Attachment - Guidance for 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 at 6 (Feb. 06, 2015).

DRP demonstration projects C, D and E,[8] residential default TOU rate pilots, enabling vehicle-to-grid technologies). While providing great expectations, these steps also exacerbate near-term regulatory uncertainties for the DER investor community. DER investors do not yet know, for example, how and when DER resources will be able to meaningfully compete head-to-head with traditional capacity in CAISO-hosted markets.

To support ongoing DER investment in California, while pilots with uncertain regulatory outcomes are underway and while there is still more to be done, the pathway/roadmap to a completely clean, DER-first sourcing strategy should be a primary output of this IDER. The roadmap should:

- Show the timing of when new DER sourcing strategies will be tested if they are not to be part of the proposed pilot.

- Indicate the timing and interdependencies of processes at sister agencies, notably the California Air Resources Board (CARB) (e.g., pricing greenhouse gas (GHG) emissions and managing criteria air pollutants,[9] California Independent System Operator (CAISO) (e.g. DER market participation rules,[10]) and the California Energy Commission (CEC) (e.g., Rule 21 Smart Inverter Working Group[11], building[12] and generation system emission performance standards[13]). Identification of interdependencies might be discussed in a workshop to inform the timeline.

Furthermore, the Commission should commit to adaptively managing the roadmap in order to take into account changing conditions and lessons from the pilots, and to make necessary

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[8] *Id.* at 6-7.
[9] *First Update to the Climate Change Scoping Plan: Building on the Framework* at 5, 86 (May 2014), https://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf.
[10] California Independent System Operator, *Energy storage and distributed energy resources,* https://www.caiso.com/informed/Pages/StakeholderProcesses/EnergyStorage_AggregatedDistributedEnergyResources.aspx
[11] California Energy Commission, *Rule 21 Smart Inverter Working Group Technical Reference Materials,* http://www.energy.ca.gov/electricity_analysis/rule21/.
[12] California Energy Commission, *2016 Building Energy Efficiency Standards: Adoption Hearing* (Jun. 10, 2015), http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2015-06-10_hearing/2015-06-10_Adoption_Hearing_Presentation.pdf
[13] California Energy Commission, *SB 1368 Emission Performance Standards,* http://www.energy.ca.gov/emission_standards/.

updates to the regulatory timeline. Commitment by the Commission to adaptively manage should also buoy investor confidence in the roadmap.

While EDF and many other stakeholders have expressed a shared goal of market-based sourcing strategies, the parallel prongs of utility request for offers (RFO) and the use of transparent pricing – either to DER providers or ratepayers – is not being given even treatment. Similarly, it remains an open question if DERs, including demand response, will be allowed to compete on a fair and open playing field to provide grid services. This question will not be addressed in the pilot as currently proposed.

As these issues resolve or, at least, evolve, and as customers and markets respond, the strategy for incenting DER investment and utilization must similarly adapt. EDF fundamentally believes that well-designed market mechanisms will adapt more fluidly and rapidly than Commission rules based on rate-of-return regulation, and that the inherent uncertainty will be best mitigated by a commitment to fair, open, carefully regulated markets with prices that reflect the external costs of generation using fossil-fueled resources.

EDF believes that a diverse set of incentive opportunities will be needed to create market conditions that allow for a balancing of (a) ratepayers' ability to benefit personally from their DER investments and (b) benefits to the grid and other ratepayers who collectively support the communal grid. These concepts deserve a fair opportunity to be examined, in a similar fashion as Commissioner Florio's proposal, which is why EDF seeks to see plans for doing so added to the timeline.

4) *Does the pilot proposal effectively complement and leverage recommendations made by the Competitive Solicitation Framework Working Group's August 1, 2016 Report and the Distribution Resource Plan Demonstration C in Rulemaking 14-08-013?*

While the pilot proposal complements DRP Demonstration Project C, together they do not effectively and comprehensively address what is needed to achieve the Commission directive to establish a "process for integrated resource planning to ensure that load serving entities meet targets to be established by the California Air Resources Board, reflecting the electricity sector's contribution to achieving economy-wide greenhouse gas emissions reductions of 40 percent from 1990 levels by 2030."[14] Specifically, neither the pilot proposal nor Demonstration Project C will produce sufficient information and insights, even after building upon Demonstration Projects A and B. The following additions therefore need to be made:

- A process by which marginal distribution costs can be described system-wide, as well as testing the use of transparent pricing provided to DER providers or ratepayers who might then invest in DER. While this was originally proposed to be part of utility demonstration projects, the final ruling omitted it.[15] Therefore, this element needs to be piloted properly, as originally contemplated by the Commission and supported by EDF.

- Testing a comprehensive set of DER incentives. EDF strongly encourages the Commission to make plans to test additional incentives-based approaches, DER hosting and service fees, and dynamic tariffs that can reward DER technologies and the behaviors that they enable. The goal should be to evaluate a full suite of methods to incent the IOUs to make DER-first distribution planning decisions. The IDER proceeding has yet to plan for the facilitation of ratepayer-owned DER via dynamic pricing and the associated incentives needed for the IOUs to execute deployment with robust and determined marketing, education and outreach. EDF explained why this is a fundamentally important step in comments made in the New York Reforming the Energy Vision (REV) proceeding:

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[14] *Order Instituting Rulemaking to Develop an Electricity Integrated Resource Planning Framework and to Coordinate and Refine Long-Term Procurement Planning Requirements,* R. 16-02-007 at 1 (issued Feb. 19, 2016).
[15] *Assigned Commissioner's Ruling Re Draft Guidance for Use in Utility AB 327 (2013) Section 769 Distribution Resource Plans: Attachment- Draft Guidance Document for R. 14-08-013*, Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769 at 18-19 (filed Nov. 17, 2014) ("to implement this guidance, the IOUs shall include the following in their DRP filings…a specification for a demonstration project that seeks to quantify distribution marginal pricing for a distribution planning area over the course of a normal distribution infrastructure planning horizon. Included as part of this project will be a process for making public the distribution marginal prices that are derived from the project. This Demonstration project shall be scoped to commence within 1 year of Commission approval of the DRP").

> *In the case of regulated pricing for electric service, fair valuation of DER requires an approach that gradually moves towards becoming more time and location granular and that unbundles the different services provided to the customers – an approach that is also indicated in the White Paper. The largest values to the owner from DER are often captured through the prices for the electric service that she avoids by investing in DER. That means that in the long term to steer the development of the future electric grid towards DER that are cost-efficiently integrated into the system, it is important that the underlying rate structure be more unbundled as to provide the right price signals and incentives for DER investment.*[16]

- A full description of entire utility service territories in terms of DER locational net benefits. Although this IDER pilot proposes to evaluate individual projects based on LNBA findings, and the DRP will demonstrate LNBA methods, neither currently plans to produce a system-wide map that can inform DER investors about where values are greatest (and least). This is a fundamental step of optimizing DER deployment for customers and the grid.

- The opportunity to evaluate the DRP goal of optimizing DER deployment for the ratepayer who invests in DERs and the broader grid. Thus far, all focus in the DRP and the DER has been on optimizing DER investment for only the grid (i.e., utility) side of the coin.

These items can and should be placed on a clear roadmap, as EDF described above.

5) *Are there changes to the attached proposal that you see as essential and without which you would not support adoption of the proposal?*

Yes. EDF supports the premise that led to this pilot proposal: utility incentives are not structured to accommodate cost-saving DERs. Given the severity of the concern that motivated this pilot proposal – that the IOUs are not sufficiently incented to seek DER solutions first – EDF believes the pilot should be undertaken as part of a comprehensive DER sourcing strategy. As well, EDF supports changes to the proposed pilot.

More specifically, EDF believes the following changes should be made:

- The proposal should clarify what it means for the IDER pilot to "mirror" Demonstration Project C in the utility DRPs. If the intention is to provide a reciprocal image, EDF does not find that very useful. Instead, the IDER and Demonstration Project C processes

[16] *Initial Comments of Environmental Defense Fund Regarding the Staff White Paper on Ratemaking and Utility Business Models,* Case 14-M-0101 – Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision at 23 (Oct. 26, 2015).

ought to be complementary, learning and mutually reinforcing each other to make something more whole, and they should be put in context (on a roadmap) with additional steps, such as piloting transparent pricing as a means to source DERs.

- The utility incentive proposal should include a long-term timeline that shows plans for comprehensive testing of DER incentive-based approaches that are based on transparent pricing and fees for provision of services to DER owners.

- As described above, EDF does not support payments to IOU shareholders based on avoided infrastructure costs. It is difficult to ascertain what the true cost of such infrastructure would be, and it would cause perverse incentives to overestimate investment needs and the costs of traditional solutions. EDF remains concerned that basing a fixed percentage payment on such criteria could lead to inflated cost estimates, effectively gold-plating the grid. In grid modernization proposals and in the Integration Capacity Analysis, the IOUs are claiming distribution investment is necessary to accommodate more DERs. The proposed pilot adds fuel to that already burning fire without fundamentally examining other possible models to incent DER-first solutions that reduce the need for distribution infrastructure investments.

- Relying on the results of the LNBA is an inadequate plan because the LNBA outputs will be incomplete in terms of describing the entire service territory and the full set of costs and benefits (from all perspectives). First, as mentioned above, the DRP demonstrations will not produce system-wide LNBA estimates, but rather will demonstrate LNBA methods for specific distribution grid upgrades. Second, Commissioner Florio states that the pilot will be "limiting the active deployment of DER to locations where the benefits exceed the cost"[17] without defining how to measure benefits. In order to truly measure the social cost of additional DER solutions and corresponding positive environmental and health impacts, the Commission should use a TRC. The current approaches to LNBA in the DRP demonstration projects reflect utility costs that become part of the ratebase, but do not reflect total social cost as per a TRC. Without a TRC perspective, DER investments that provide significant long term environmental benefits will be undervalued.

Rather than having the proposed pilot test a variation of the Efficiency Savings and Performance Incentive (ESPI), EDF believes it makes the most economic sense to tie the size of the utility's reward to the size of net benefits created. One approach would be to tie rewards to the calculated net benefits indicated in the LNBA analysis supporting the project, but only if the

[17] *Amended Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge: Attachment – Revised Assigned Commissioner Proposal for Distributed Energy Resource Incentives*, Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning and Evaluation of Integrated Distributed Energy Resources, R. 14-10-003 at A-6 (Sep. 01, 2016).

LNBA reflected the long-term perspective of society, including future ratepayers, and included the full set of costs and benefits.

Since it is difficult to determine the net benefits with great precision, which creates significant uncertainty in determining how to set shareholder incentives as a certain percentage of those benefits, EDF would be more supportive of a simpler approach basing incentives on a percent of program budget. If the Commission decides to predicate incentives on net benefits, then these should be based on LNBA analyses rather than on a counterfactual examination of alternative, so called "traditional" investments.

III. CONCLUSION

EDF thanks the Commission for the opportunity to comment on this amended scoping memo and looks forward to continued involvement as this proceeding and utility incentive pilot develops.

Respectfully signed and submitted on September 15, 2016.

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