



## MEMORANDUM

**TO:** LGSEC Distributed Generation Policy Committee

**CC:** LGSEC Board

**FROM:** Nathan Wyeth and Jody London, Regulatory Consultants

**SUBJECT:** Draft Guidance for Rulemaking 14-08-013 – Distribution Resource Plans

**DATE:** December 1, 2014

This memo provides a summary of recent [Draft Guidance from the California Public Utilities Commission](#) (“CPUC” or “Commission”) concerning the new requirement under Public Utilities Code Section 769 for utilities to file Distribution Resource Plans (“DRPs”) with the Commission. These plans are intended to serve as roadmaps for the comprehensive and cost-effective integration of distributed energy resources (“DERs”) into distribution grids and to drive analysis of how DER integration can be approached so as to best achieve this goal.

The CPUC is taking comments on the Draft Guidance document this Friday, December 5. Commissioner Picker expects that this Draft Guidance will be followed in early 2015 with a Commission ruling or determination providing additional structure for utilities to follow in submitting their DRPs in July 2015.

The LGSEC submitted comments in this proceeding in early October. We emphasized the importance of coordination with local governments as the utilities develop their DRPs. The Draft Guidance does not make any explicit references or call for any requirements in this area. This is something we will want to emphasize in comments later this week. We also may wish to comment on the energy data access requirements in the Draft Guidance.

### **Overview of the Draft Guidance**

On November 17, the CPUC released a ruling from Assigned Commissioner Picker that includes the draft guidance that is the subject of this memo. As defined by the Draft Guidance, DERs include distributed generation, energy efficiency, energy storage, electric vehicles and demand response. Where fuel cells or internal combustion generators can reduce greenhouse gas emissions relative to centralized resources, these may be considered DERs as well even if they utilize fossil fuels.

The Draft Guidance lays out the requirements the investor-owned utilities (“IOUs”) must meet in their initial DRPs to be filed by July 1, 2015, while outlining the Commission’s longer range goals for DRPs and its intended approach to DRPs in the future. While the Draft Guidance does not specify direction to the IOUs in all the areas called for by commenters advocating high DER adoption, it takes several steps towards this.

While noting that the Commission has been informed by similar proceedings in New York and Hawaii, the document also explicitly notes that this proceeding is intended to be narrower in scope than the “Reforming the Energy Vision” process being undertaken in New York. The Guidance also considers “changes to business models and utility service platforms” to be beyond the scope of the proceeding. It nonetheless considers what is to be undertaken as “potentially revolutionary.”

While stepping away from any attempt to directly change how and for what purposes the distribution grid is managed, the Draft Guidance places the DRP process within a vision for high penetration of DERs in California driven by an overarching imperative and policy goal to reduce greenhouse gas emissions.

The emphasis on iterative planning and coordination between utilities and other actors on the grid may provide an opportunity to emphasize the importance of coordination with local governments and related entities. The inclusion of environmental, economic and social equity benefits in the required analysis of the locational value of DERs may provide a specific opportunity to drive integration of DRPs with local Climate Action Plans or similar local planning processes where the potential benefits of DERs have already been documented.

### **Specific Issues in the Draft Guidance**

#### *Timeline*

The Draft Guidance places the initial DRP process in the context of longer term goals that the Commission has for modernizing the distribution grid to incorporate DERs in a “plug and play” fashion. Accordingly, a biennial review/revision process for DRPs is recommended. This fits as part of a multi-phase process articulated as follows:

- Phase 1, in 2016-2017, will consist of IOUs evaluating capacity for DER penetration down to the substation level, with the output being GIS maps and powerflow models.
- Phase 2a, in 2017-2018, will use the analysis and methodologies developed in Phase 1 to establish Distributed Energy Resource Development Zones where DERs can offset investment in new infrastructure.
- Phase 2b, from 2018 onwards, will entail the development of procurement mechanisms for services from DERs and deepening of third-party DER engagement to include projects like islanded microgrids.

The Draft Guidance frames the first 2-3 years of the DRP process as a technical and methodological learning phase, after which it is hoped that focus can shift to optimizing the

working relationships between actors such as utilities, consumers, third-party DER providers and the California Independent System Operator.

#### *DRP Methodology and Requirements*

The Draft Guidance document includes specific directions for IOUs on the nature of analysis they must conduct for their DRPs. This includes:

- An “Integration Capacity Analysis” – how much DER capacity can be handled at the circuit level.
- Currently planned distribution infrastructure investments.
- Identifying existing levels of DER penetration by technology type in their service areas.
- Building on the existing bi-monthly updates submitted as part of the Reverse Auction Mechanism for procuring renewable resources between 3-20 MW to identify how this Integration Capacity Analysis will be updated.
- An Optimal Locational Benefits analysis that indicates the net benefit that DERs can provide in a given location, based on a standard methodology to be developed by the IOUs.
- Constructing models for DER penetration in their service areas, including areas of expected high penetration (based on scenarios as described below).

Finally, IOUs are also to quantify the tariffs that govern and incentivize DERS and to “develop recommendations for how locational value could be integrated into the... existing tariffs for DERs”; to note the safety considerations associated with higher DER penetrations; and to note the barriers (regulatory, statutory, technical and otherwise) to DER interconnection and provision of benefits. The Draft Guidance notes that it is too early to connect the DRP process to general rates cases, but instructs IOUs to suggest the actions or investments from DRPs that might be included in their next general rate case.

#### *Demonstration Projects*

The Draft Guidance emphasizes the use of demonstration programs to generate “proof points” for DER integration into distribution operations and planning even as the above methodologies are refined. The utilities are directed to propose demonstrations as a way to demonstrate and build empirical data and experience around the operational effectiveness of DERs for locational value they provide to the create. Specifically, the IOUs are to propose demonstrations where DERs provide at least three forms of value to the grid - the examples given are resource adequacy, distribution capacity deferral, and voltage/reactive power regulation. Demonstration projects are intended to commence within one year of Commission approval of an IOU’s DRP, include customer or 3<sup>rd</sup> party resources, and specify contractual mechanisms through which DERs will provide services to the IOU. IOUs are also directed to set up pilots that test high levels of DER penetration in specific areas and to attempt to quantify Distributed Marginal Pricing as a mechanism to compensate DERs within a distribution infrastructure planning process.

### *Access to Data*

The Draft Guidance recognizes that introducing DRPs will require a lot of data to be transferred between utilities and third parties. It identifies two categories of data as important: distribution system characteristics and distribution planning data. This would be one place to recognize the importance of coordination with local governments, who possess some of the data mentioned. The Draft Guidance directs the utilities to include proposed policies on data sharing in their DRPs, being mindful that the Commission has already issued guidance for some data in Decision 14-05-016. The data listed in the Draft Guidance focus on how the utilities will communicate with DER owners.

### *DER Penetration Scenarios*

The Draft Guidance takes what appears to be a relatively aggressive stance towards DER adoption as the policy goal of the Commission by requiring that the IOUs use three scenarios for their DRPs – one with the IEPR “Trajectory” case for DER penetration, one with the California Energy Commission’s Integrated Energy Policy Report’s “High Growth” case, and one with “very high growth” in DERs “to meet transmission system needs and resource adequacy”... incorporating “goals like those articulated in Zero Net Energy targets and the Governor’s Zero Emission Vehicle Action Plan.”

### *Relationship to Other Proceedings*

The Draft Guidance notes a large number of other proceedings with overlapping focus, mainly relating to specific types of DERs and suggests that this rulemaking should not be expected to override other proceedings. For example, with regard to tariffs, the Guidance suggests that, for example, this proceeding may result in a recommendation that Net Energy Metering (“NEM”) incorporate locational value for DERs, but that setting this tariff should be left to the NEM Successor Tariff rulemaking.

### *Environmental, Economic or Social Equity Benefits*

A major topic of comments on the DRP process concerned the inclusion of environmental and social benefits in the calculation of locational value for DERs. Notably, the Draft Guidance includes the definition that “a location is optimal if... [a] deployment of DER can provide other benefits such as economic, environmental or social equity at a specific location.” The Draft Guidance does not specify at this time a methodology for determining the magnitude of such benefit, but its inclusion would seem to respond to the comments advocating for this measurement.

### *Customer Choice*

While a number of DER advocates focused their comments on the importance of consumer choice in adopting DERs, including as a benefit unto itself, customer choice is not included on this list. Customer choice is included as an overall “goal” of the DRP process, alongside “moderniz[ing] the electric distribution system to accommodate two-way flows of energy and energy services throughout the IOUs’ networks.” However, the fact that it is not included as a specific benefit or value of DERs suggests that the Commission does not intend to incorporate customer choice in the actual calculation of DER value to the grid, perhaps because it is unclear

how such a benefit could be quantified alongside others, particularly alongside benefits that accrue to ratepayers in general (grid stability, reliability, etc.).

**Next Steps**

As indicated above, comments on the Draft Guidance are due December 5. We recommend the LGSEC submit brief comments emphasizing where in the anticipated process the utilities should coordinate with local governments. Please send your ideas on this to Jody as soon as possible. We will have a draft version of the comments for review by Wednesday.

Please contact Jody London with any questions or comments.