

September 6, 2013

California Energy Commission  
Dockets Office, MS-4  
Re: Docket Nos. 13-IEP-1H  
1516 Ninth Street  
Sacramento, CA 95814-5512



**RE: ELECTRICITY INFRASTRUCTURE COSTS OF DISTRIBUTED GENERATION**

The Independent Energy Producers Association (IEP) appreciates the opportunity to comment on the Commission's staff workshop on distributed generation and electricity infrastructure costs. IEP's comments are presented below.

**1) Definition of DG Is Important**

In prior IEP comments to the Commission, we have opined that the definition of DG is important, particularly in light of the Governor's Clean Energy Jobs Plan to realize 12,000 MWs of localized renewable energy in California by 2020. In the past, the DG program has been characterized by various parties as being renewable only; or, renewable plus CHP; or, on the distribution grid only; or, less than 20 MWs but including transmission interconnected facilities if located "close to load." Most recently, the Commission staff has characterized the DG focus in the Governor's Clean Energy Jobs Plan as being the following:

- Renewable;
- Less than 20 MWs;
- On-site or close to load;
- Constructed quickly with no new transmission; and
- Typically with no to little environmental impact.<sup>1</sup>

In order to properly plan (and model) the impacts of DG, the definition matters. If the staff definition is now the definition to be employed by state policy makers, then clarifying that would be immensely helpful. However, in light of the staff definition, the following questions arise:

- Is non-renewable CHP now excluded from the definition of DG?
- What is the measure for "close to load"?
- Can DG resources interconnected to existing transmission count?
- What constitutes "constructed quickly" in the context of the DG definition?
- Does "no to little environmental impact" imply only to projects that do not trigger CEQA?

IEP believes that the definition of DG will be critical to determining the likelihood of success, as well as providing indicators of total costs (and benefits), of an expanded DG

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<sup>1</sup>Staff IEPR Workshop Presentation, "Distributed Generation: Electricity Infrastructure Costs and Impacts," slide 5.

program. Hence, the importance of settling on a definition. Under the current staff definition, the state needs to procure/secure approximately 8,700 MWs of additional DG to achieve the Governor's policy objective, i.e., approximately 1,200 MWs *per year* beginning 2014. This represents an approximate tripling of the amount of DG (as defined) currently on the system.<sup>2</sup> Assuming that another 18 months are required to work the bugs out of the current modeling effort as a prerequisite for expanding DG penetration, then in reality the Governor's Goal implies the need for approximately 1,500-1,700 MWs of additional DG (as defined) *per year* beginning in 2016 to achieve the policy objective by 2020. Is this practical or even feasible?

IEP's primary concern is that this planned build-out is neither commercially practical nor feasible, yet planners will be wedded to the assumptions today as planning unfolds for 2020 and beyond. If this is the case, planners and policymakers likely will fail to procure other resources that will be needed to fill the void and/or help maintain overall grid reliability over the 10-15 year planning horizon. This will, in turn, likely result in developers devoting less time and effort to develop new projects in California, thereby choking off the pipeline of potential new projects.

## 2) Goal of "Guiding" DG Development Is Laudable in Principle, Difficult in Practice

The staff has asked the correct question: "Is continuing with the current process for locating distributed generation projects a viable option?" The follow-up question is even more compelling: "If not, what value would be provided by a state planning process that guides distributed generation, and other preferred resources, to preferred locations?"

IEP reiterates previous and often repeated comments that it is important that utility procurement practices (e.g., RFOs) be sufficiently transparent to guide developers in advance to preferred locations (and products) that foster Least-Cost/Best-Fit (LCBF) outcomes. Waiting until an RFO (or standard contract tariff offer) is made available to market participants, e.g., 30-60 days prior to project submittals, may not be sufficient guidance to drive viable commercial activities in preferred locations, particularly if the preferred locations are identified narrowly from a geographic and/or interconnection perspective.

On the other hand, overly prescriptive guidance from planners all too often has proven to be unwarranted and not particularly helpful in obtaining timely, cost-effective resources when and where needed. The reasons for this phenomenon are many:

- a) **Modeling is Inherently Imprecise.** Assumptions embedded in modeling are contextual, time sensitive, and often fickle. California planners appear increasingly enamored with increasingly complex models. Yet, few decision-makers understand these models let alone can explain their outcomes. As a result, the question of "need" and cost-effectiveness typically remains unresolved and the development of needed resources all too often gets delayed due to prolonged study, debate and/or litigation.
- b) **Modeling is Typically Stale and Untimely.** The California experience has been that the development of complicated modeling efforts fails to keep pace with the actual need. Models all too quickly become stale and out-of-date in this age of rapid technology change (and, for the energy sector, load change).

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<sup>2</sup> Ibid, slide 6.

- 3) **Guidance Need Not Be Precise To Achieve Rewards.** While the precision assumed to result from complex modeling may be theoretically interesting, the key question is whether such modeling will provide added value in terms of timely decision making? In this context, the Commission and stakeholders need to address the following: Will the time it takes to perfect the model render the model “out-of-date” to decision-makers? Can comparable value be achieved with less precision? Does precision need be the watchword in technology development and procurement, when we know that precision is an impossible task in a highly complex and dynamic energy world?

#### 4) **Analyses Must Not Rely on Assertion**

The primary rationale for pursuing aggressive DG policy outcomes is the assumption that DG is the LCBF. In some instances, DG will be the LCBF solution. In other situations, the case is less certain. The DG modeling and guidance initiative ought to explore this fundamental value proposition as a pre-condition to developing a planning/guidance tool for DG resource development.

##### a) **Costs/Benefits Evaluation Should Be Based On Strong, Empirical Evidence.**

Assertions of benefit do not make them so. This is true particularly in the context of imputed value associated with rapid and aggressive DG development. For example, the Clean Coalition in their workshop presentation, “Distributed Generation + Intelligent Grid” offered on the record the following information:

- i) **“The most cost-effective solar is large WDG [wholesale DG], not central station due to significant hidden T&D costs.”** (Slide 4). Is WDG really more cost effective than central station solar – in all cases? *Where is the evidence for this assertion?*
- ii) **“Avoided Transmission in CA = \$80 billion over 20 years”** Does California really expect zero investment in new and/or upgrade transmission infrastructure over the next 20 years? Alternatively, can WDG reasonably be expected to avoid all incremental transmission infrastructure investment over the next 20 years, including new and/or upgraded transmission to match load growth and/or make the existing transmission system more efficient? *Where is the evidence for this assertion?*
- iii) **“Transmission Costs Exceed 3 cents/kWh in CA.”** For every kWh delivered to a California consumer, is it really true that fully 3 cents of the cost of that delivered energy is attributed to the cost of the transmission system (excluding distribution infrastructure)? *Where is the evidence for this assertion?*

##### b) **Asserted Benefits Must Withstand Rigorous Examination.**

IEP believes that mere assertion of benefits ought not to govern the determination of value. More explicitly, assertion(s) of benefits ought to be rigorously tested and subject to cross-examination. This requires a measure of transparency by the parties making any such assertions. IEP requests that the CEC follow-up on parties’ assertions and seek supporting evidence, documentation, etc., in a workshop setting open to public participation and comment. All parties should fully understand the basis for the benefits/value calculation underlying the policy prescription.

### **5) Conclusion: Modeling to Guide Commercial Development Can Be Perilous**

Overall, as indicated above, IEP can appreciate the potential value of siting DG (or any resource) in preferred locations to minimize overall costs. However, also noted above, we have concerns that modeling as a means to guide commercial development can be perilous. Facts matter. Real costs matter. Actual benefits matter. But more practically, commercial development is fickle and fleeting. IEP remains concerned that overly prescriptive, complex modeling actually slows the development of preferred resources rather than hastens their occurrence. Furthermore, IEP is concerned that the assumption of being able to achieve high penetrations of DG on a LCBF basis via “guidance modeling” will become a barrier to installing more readily available LCBF resources needed to help maintain grid reliability during the transition to a future more heavily dependent on DG and preferred resources.

IEP thanks the CEC for the opportunity to comment on the Staff Workshop on Distributed Generation and Electricity Infrastructure Costs. We look forward to working with the CEC on these critical issues.

Respectfully submitted,

A handwritten signature in black ink that reads "Steven Kelly". The signature is written in a cursive, flowing style with a large, stylized "K" and a long, sweeping underline.

Steven Kelly  
Policy Director