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California Energy Commission
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1516 9th Street
Sacramento, CA 95814-5512

RE: Comments of Calpine Corporation on the Joint Committee Workshop on Electricity Infrastructure Need Assessment, convened November 23, 2010, in preparation for the 2011 Integrated Energy Policy Report (IEPR).

Docket No. 11-IEP-1D Reliability

Dear IEPR Committee:

Calpine appreciates the opportunity to comment on the *Infrastructure Need Assessments for the 2011 Integrated Energy Policy Report* draft staff paper as well as the November 23, 2010 workshop to discuss the draft staff paper.

Calpine is largest independent generator in California with approximately 7 GW of capacity in and around California consisting of mostly new and efficient gas-fired generation, approximately 850 MW of combined heat and power (CHP) capacity, and 725 MW of geothermal capacity at the Geysers. In addition, Calpine is developing a new 600 MW combined cycle at the Russell City Energy Center in Hayward and an incremental 120 MW of combined cycle capacity through the Los Esteros upgrade in San Jose.

Calpine offers the following general comments on the draft staff paper and the workshop to discuss the draft staff paper:

First, Calpine concurs with the comments being filed today by Independent Energy Producers with respect to the importance of not creating overlapping and potentially duplicative planning processes with respect to siting new infrastructure in California. There are already multiple venues for long-term resource planning in California, including the California Public Utility Commission's (CPUC) Long-Term Planning and Procurement (LTPP) proceedings and the California Independent System Operator's (CAISO) transmission planning and renewable integration modeling efforts. These processes are unlikely to wither away in the event that the California Energy Commission (CEC) introduces a comprehensive statewide need assessment, so, if the CEC implements a need assessment, it is critical that the CEC leverage and/or avoid duplication of these other efforts.

Second, if the CEC introduces a need assessment, the assessment must provide some degree of *ex ante* certainty. In our development efforts, we have been subject to delays due to the sequential linkages between reviews by different regulatory agencies. For example, modest modifications in the specific technology used for a project in order to

satisfy one set of regulators, for example, a local air district, may lead to the reconsideration of the other permits associated with a project. These linkages between the permits issued by different agencies can lead to an endless "do loop" in which it is nearly impossible to obtain all necessary permits for a project because new conditions associated with any one permit may invalidate all previously obtained permits. If CEC approval of a project is based on an explicit determination of need, the characterization of need should be sufficiently general that it encompasses plausible future modifications to a project. For example, need might be defined in terms of gas-fired generation of a particular minimum efficiency with certain operating characteristics such as maximum start times and minimum ramp rates, i.e., it should not be tied to any specific gas-fired generation technology.

Third, if the CEC introduces a need assessment, the assessment should identify need sufficiently generally to allow for competition. As Carl Silsbee of Southern California Edison noted at the workshop:

> I would ask you to consider how your actions can enhance competitive markets for generation and retailing, and how you can provide regulatory certainty to those who are the ones investing money in the infrastructure necessary to move us forward over the next decade, and that investment is not just utilities, but it's also private parties, and I think it is incumbent on us to think about what are the processes by which we encourage that investment, instead of just ordering it.[1]

If need is specified so narrowly that it only can be satisfied by a very limited set of resources, such as resources in a relatively small geographic area, then the determination of need effectively presumes a solution to meet the need and confers market power on the limited resources or potential resources that would be able to meet the need. Such prescriptive planning is unlikely to lead to efficient or least cost solutions.

Fourth, in considering the introduction of a new layer of planning, policy must consider the compatibility of planning with procurement and development. If planning cannot be completed in a time frame that is conducive to procurement and development then it leads to "paralysis by analysis" not more systematic procurement and development. At the November 23 meeting, Commissioner Byron asked whether the generation solicitations of the Investor Owned Utilities (IOUs) have become more targeted towards the locational and operational characteristics necessary to resolve important policy challenges, such as the retirement of units that rely on once-through cooling and increasing demands for operational flexibility associated with renewable integration.[2] While once-through cooling replacement and renewable integration issues have been important focuses of the last and current cycle of the CPUC's LTPP proceedings, these proceedings have not yet led to more targeted solicitations for flexible generation in part because of delays related to modeling. The last LTPP proceeding concluded without

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[1] Transcript of the November 23, 2010 workshop at 90.
[2] *Ibid.* at 83.

granting long-term procurement authority to the California IOUs.[3] The current cycle already has been delayed by the very important and constructive but time-consuming modeling of renewable integration issues that is being led by the CAISO. In fact, the next set of CAISO modeling results is not expected to be available until March 2011.[4] Given that the previous cycle of the LTPP was focused almost exclusively on modeling and ended without the granting of procurement authority and the current cycle appears to be delayed, in part due to delays associated with modeling, we should be appropriately cautious about introducing new layers of planning and modeling that further delay procurement—especially in light of the significant delays associated with the development of many infrastructure projects in California once they are procured.

Fifth, to the extent that the CEC pursues new planning efforts, it should focus its efforts on issues that it is uniquely well situated to address. The CPUC's mandate is limited to its jurisdictional entities, and excludes major municipal utilities such as the Los Angeles Department of Water and Power (LADWP) and the Sacramento Municipal Utility District (SMUD). Similarly, the CAISO generally limits its attention to its balancing authority, which largely overlaps with the IOUs' service territories. In contrast, the CEC has the mandate to examine issues that affect the whole state including the service territories of large municipal utilities. Consequently, it has a greater ability than other agencies to examine issues that cut across multiple balancing authorities. This broader perspective may be particularly useful in resolving specific planning issues that affect multiple balancing authorities, such as the nexus between electric reliability, air quality, and water issues in the LA Basin, which includes a part of the CAISO balancing authority and most or all of the LADWP balancing authority. In addition, greater coordination between different balancing authorities may facilitate renewable integration.[5] Given its broad mandate, the CEC may have a better perspective on these problems than other entities. Focused effort on these issues is less likely to duplicate the efforts of other agencies and is more likely to lead to constructive solutions.

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[3] The Order Instituting Rulemaking (OIR) R.10-05-006 (the 2010 LTPP) (http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/117903.doc) closed the 2008 LTPP (R.08-02-007). As the OIR notes:

> R.08-02-007 differed significantly from the prior LTPP proceedings. Because the 2006 process had just concluded with D.07-12-052 immediately before the opening of R.08-02-007, the Commission determined that rather than requiring the IOUs to file new 2008 LTPPs, the new proceeding would address a series of policy proposals to refine technical practices used to develop resource and procurement plans, and consider other procedural matters.

[4] See the December 3, 2010 Assigned Commissioner And Administrative Law Judge's Joint Scoping Memo And Ruling in R.10-05-006.

[5] For example, see NREL's *Western Wind and Solar Integration Study* (http://www.nrel.gov/wind/systemsintegration/pdfs/2010/wwsis_final_report.pdf) . As explained in the executive summary (http://www.nrel.gov/wind/systemsintegration/pdfs/2010/wwsis_executive_summary.pdf) balancing area coordination is critical to facilitating renewable integration.

Sincerely,

/s/

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