BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Integrate and Refine Procurement Policies and Consider Long-Term Procurement Plans.	R.13-12-010 (Filed December 19, 2013)

REPLY COMMENTS OF CALPINE CORPORATION TO KEY TECHNICAL QUESTION ON THE DECEMBER 18, 2013 WORKSHOP ON PLANNING ASSUMPTIONS AND SCENARIOS FOR USE IN THE CPUC 2014 LONG TERM PROCUREMENT PLAN PROCEEDING AND THE CAISO 2014-2015 TRANSMISSION PLANNING PROCESS

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Pursuant to the December 19, 2013 Administrative Law Judge Ruling, Calpine Corporation ("Calpine") submits the following reply to comments on the *Key Technical Question for Parties in Response to December 18, 2013 Workshop on Planning Assumptions and Scenarios for use in the CPUC 2014 Long Term Procurement Plan Proceeding and the CAISO 2014-2015 Transmission Planning Process* ("*Workshop Planning Assumptions and Scenarios*").

I. SCENARIOS REFLECTING MORE AMBITIOUS RPS GOALS SHOULD NOT PRESUPPOSE OF SPECIFIC RESOURCES

Several parties propose additional modeling scenarios that would consider the impacts of more aggressive Renewable Portfolio Standard ("RPS") and/or Greenhouse Gas ("GHG") reduction goals. For example, Eagle Crest Energy Company ("Eagle Crest"),[1] the California Wind Energy Association ("CalWEA"),[2] and the Center for Energy Efficiency and Renewable Technologies ("CEERT")[3] each propose the consideration of scenarios with renewables in

[1] *See* Opening Comments of Eagle Crest Energy Company on Planning Assumptions and Scenarios Workshop, at 2.
[2] *See* Comments of the California Wind Energy Association on Planning Assumptions and Scenarios for Use in the CPUC 2014 Long-Term Procurement Plan Proceeding and CAISO 2014-2015 Transmission Planning Process ("CalWEA Comments"), at 2.
[3] *See* Comments of the Center for Energy Efficiency and Renewable Technologies on December 18, 2013 Workshop Materials, at 3.

excess of 40% or that explicitly target aggressive 2030 GHG reduction goals. Calpine believes that these proposals generally have merit.

As discussed in its opening comments,[4] Calpine supports the modeling of a 40% (or higher) RPS scenario, but proposes that these more aggressive RPS scenarios utilize the Commercial Interest version of the RPS calculator, rather than assuming that distributed generation ("DG") will be the most cost-effective means of meeting environmental policy goals.[5] As San Diego Gas & Electric Company ("SDG&E") and CalWEA discuss, it has not been established that "higher levels of DG are practical and cost-effective"[6] and "[n]o specific amounts of central or distributed renewables should be forced; rather, the least-cost resources should be selected based on the Calculator score."[7]

With respect to scenarios that focus on GHG reduction goals rather than RPS goals, Calpine believes that such modeling could be particularly illuminating. It is important to note, however, that the derivation of a resource portfolio to satisfy a GHG target would be fundamentally different than the derivation of resource portfolios that have been performed in recent Long-Term Procurement Planning ("LTPP") proceedings and would likely require new analytic tools. Current LTPP modeling relies on the RPS Calculator to derive renewables portfolios that satisfy a RPS target. The portfolios are then used in production cost and power flow models to derive estimates of need for dispatchable resources such as conventional generation. The derivation of portfolios that satisfy a GHG target would be potentially more

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[4] Response of Calpine Corporation to the Key Technical Question on the December 18, 2013 Workshop on Planning Assumptions and Scenarios for use in the CPUC 2014 Long Term Procurement Plan Proceeding and the CAISO 2014-2015 Transmission Planning Process, at 3.

[5] In fact, recent modeling by E3 suggests that a diverse mix of utility-scale renewables may be the most cost-effective means of satisfying more ambitious RPS targets. *See* Section 5.2 of http://www.ethree.com/documents/E3_Final_RPS_Report_2014_01_06_with_appendices.pdf.

[6] Response of San Diego Gas & Electric Company (U 902 E) to Questions Regarding Workshop Held December 18, 2013 ("SDG&E Response"), at 5.

[7] *See* CalWEA Comments, at 6.

complicated and might consider trade-offs not only across multiple measures in the energy sector, including renewables, energy efficiency, and Combined Heat and Power ("CHP"), but also measures outside of the energy sector, such as the electrification of transportation.

II. ONLY EXISTING OR PLANNED RESOURCES SHOULD BE INCLUDED IN THE BASE CASE MODELING ASSUMPTIONS

Several parties, in particular parties representing the interests of pumped storage,[8] Demand Response ("DR"),[9] CHP,[10] and geothermal resources located in the Imperial Valley,[11] propose the addition of significant amounts of new and unplanned resources in the modeling assumptions. The Commission should reject these proposals.

To ensure that future reliability needs are met in the most efficient and cost-effective manner, it is critical that the scenarios modeled best reflect expected system conditions. By doing so, the modeling will better identify the best, most valuable locations and operating characteristics of needed resources. Specifically, Calpine agrees with SDG&E that:

> Resources that are not currently in existence, but may become available during the study period, should be analyzed as potential solutions to meeting the need that is identified based upon the model calculation. This will enable a more reliable need calculation since it will more precisely define the need by identifying separately the need that exists based upon resources currently in existence (the need based on the base case calculation that assumes only existing resources) and the need that exists once expected resources are taken into account (the need that results

[8] *See e.g.*, Post Workshop Comments of the California Energy Storage Alliance, at 3.
[9] *See e.g.*, Comments of EnerNoc, Inc. on December 18, 2013 Workshop Materials, at 2.
[10] *See e.g.*, Comments of the Cogeneration Association of California and the Energy Producers and Users Coalition on Planning Assumptions, at 1-2.
[11] *See* Opening Comments of the Imperial Irrigation District on the ALJ Email Ruling Dated December 19, 2013, at 2. While Calpine agrees with the Imperial Irrigation District that geothermal resources should be considered as a possible solution to meet identified capacity and operational needs, and particularly for meeting GHG reduction goals, the Commission should consider all geothermal resources, and not limit its consideration of geothermal resources to resources located in specific areas in the modeling assumptions.

when expected resources are analyzed as solutions to meeting the need that results from the base case calculation).[12]

As Calpine noted in its opening comments, determining whether a particular resource is an economical means for satisfying future resource needs requires that the resource be tested against alternative options rather than simply assumed. Accordingly, to the extent that a particular resource does not already exist or is not planned, then it should not be included in the modeling assumptions and instead be evaluated as a possible solution *after* the need has been determined.

III. EXISTING CAPACITY PRESENTS A POTENTIALLY COST-EFFECTIVE SOLUTION FOR SATISFYING OPERATIONAL FLEXIBILITY NEEDS

The Union of Concerned Scientists ("UCS") and Sierra Club believe that the Commission should focus on effectively utilizing "the demonstrated over-abundance of existing capacity" to fulfill the operational flexibility needs before adding more capacity to the system.[13] In particular, UCS and Sierra Club argue that "[u]sing existing resources in a more sensible way promises to be cheaper for ratepayers and more consistent with State policies than procuring new fossil-fueled resources."[14] Calpine has consistently supported policies that would ensure existing generation resources have the opportunity to compete with new resources to satisfy reliability needs and agrees that looking to existing resources of all types, including conventional and renewable generation, demand response, energy efficiency, and storage, to fulfill identified

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[12] SDG&E Response, at 3-4; *see also* Opening Comments of Southern California Edison Company (E 338-E) on Standardized Planning Assumption, at 4 ("Rather than make unfounded assumptions about energy storage and insert them into the analysis, SCE recommends that the 2014 LTPP analysis identify need that could inform SCE's energy storage procurement. This is a much better approach for long-term planning, since the studies performed in this cycle of the LTPP will identify any 'gaps' in the projected mix of future resources, allowing utilities to conduct more effective solicitations.")

[13] Comments of the Union of Concerned Scientist and Sierra Club on Key Technical Question for Parties in Response to December 18th, 2013 Workshop on Planning Assumptions and Scenarios for Use in the CPUC 2014 Long Term Procurement Plan Proceeding and the CAISO 2014-2015 Transmission Planning Process ("UCS and Sierra Club Comments"), at 6.

[14] UCS and Sierra Club Comments, at 6.

operational or reliability needs, both at the system and local level, will result in most cost-effective and efficient use of resources.

By: /s/

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