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.	FILED PUBLIC UTILITIES COMMISSION MAY 6, 2010 SAN FRANCISCO, CALIFORNIA RULEMAKING 10-05-006

FIT COALITION COMMENTS ON RENEWABLES INTEGRATION MODELS

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RENEWABLES INTEGRATION MODELS

The FIT Coalition respectfully submits these comments pursuant to the Administrative Law Judge's Initial Ruling ("ALJ Ruling"), dated September 8, 2010, and pursuant to Rules 1.9 and 1.10 of the California Public Utilities Commission's ("Commission") Rules of Practice and Procedure.

The FIT Coalition is a California-based advocacy group focused on smart renewable energy policy. We advocate primarily for vigorous feed-in tariffs and "wholesale distributed generation," which is generation that connects on the supply-side of the meter close to demand centers. Our members are active in proceedings at the Commission, Air Resources Board, Energy Commission, the California Legislature, Congress, the Federal Energy Regulatory Commission, and in various local governments around California.

The FIT Coalition submits below relatively brief comments on a few highlights that arose in the workshops. We will weigh in on the pros and cons of the CAISO integration model vs. the PG&E model, as well as the results of the CAISO 20% RPS integration study, and other issues in our reply comments

Our primary recommendations are as follows:

- The Commission should clarify whether contingency reserves can or cannot be used to balance variable renewables
- The Commission should examine in detail the likely rate at which the current excess in system-wide Resource Adequacy (30%) will be absorbed by load growth; this may have a very significant impact on ratepayer costs for balancing variable renewables because it could be years or decades until this excess is absorbed
- The Commission should recognize that solar thermal is <u>not</u> a variable resource because it has a Net Qualifying Capacity of 90-95%
- The Commission should work with other state agencies to pin down the likely timetable for once-through-cooling retirements and/or replacement plants

I. Discussion

Step 1 (regulation and load-following needs) and Step 2 (longer term flexibility requirements) issues are not clearly demarcated as issues and there was some discussion of both steps at the workshops. Similarly, our comments below include some overlap of Step 1 and 2 issues.

A. Contingency reserves issues should be clarified

The issue of contingency reserves arose a number of times in the workshops. There was no consensus, however, on the degree to which contingency reserves may be used to balance variable power sources. Some parties believe the answer was clearly "no" and others thought it may be permissible, at least to a limited degree. This is a potentially important issue because it may obviate the need to build additional power capacity to regulate or balance variable renewables until California reaches a far higher percentage of variable renewable energy than we enjoy today.

B. The rate at which current excess Resource Adequacy will be absorbed should be analyzed in detail by the Commission

Similarly, CAISO staff mentioned in the workshops that current system-wide Resource Adequacy is approximately 30 percent. This is far higher than the 15-17 percent required by the Commission. And, when we consider the fact that California's electricity demand growth is currently stagnant and the latest Energy Commission energy demand forecast projects much slower growth than when before the recession hit in full force, it seems entirely possible that it could be many years before this excess RA capacity is absorbed – perhaps even decades.

This issue has potentially very important ramifications for California's power fleet and, in particular, the need (or lack thereof) to build new fossil fuel-fired peaker plants to balance variable renewables or to meet increased peak demand that may result from increased air-conditioner and appliance use ("plug-load growth").

Moreover, CalWEA raised a pertinent point on this issue at the workshop: the 15-17% RA requirement was created as a rule of thumb for a one day in ten year loss of load probability event. This seems far too stringent as a general

requirement and this issue should probably be discussed further when Step 2 issues are addressed directly in this proceeding.

The ALJ Ruling (p. 2) asks parties: "What timeframe is appropriate for authorization to procure resources providing additional flexibility?" The FIT Coalition cannot say at this juncture what the appropriate timeframe will be, but it seems clear that with this large excess of RA resources that it will be some time before new RA capacity is required. We recommend that the Commission work with CAISO in this LTPP to complete an analysis of this issue and provide more insight into the appropriate timeframe for these decisions.

In addition, with CAISO's recent completion of its report, "Operational Requirements and Generation Fleet Capability at 20% RPS," which concludes that existing regulation capacity and reserves are sufficient to balance the 20% RPS mandate (to be achieved by 2013 or so under current projections), it seems that there is not a great hurry to determine what additional resources will be needed to integrate variable renewables. The fact that an increasing share of the RPS will be met from solar thermal (compared to projections from previous years) further supports this conclusion because solar thermal can act as a reliable balancing resource for variable renewables like wind power, as described below.

C. The Commission should recognize that solar thermal is not an intermittent or variable power source

The FIT Coalition supports the Large-Scale Solar Association's workshop comments (Tom Beach) that solar thermal power is not an intermittent/variable power source under applicable state rules. This is the case because solar thermal power enjoys a Net Qualifying Capacity of 90-95%, which makes solar thermal a very reliable peak power resource. Moreover, as solar companies incorporate thermal storage and other power storage technologies, the NQC for solar thermal will rise even higher. Abengoa Solar, a Spanish company now developing a number of solar power plants in the U.S., has deployed molten salt thermal storage at its Spanish solar power plants. And according to Solar Reserve, a joint venture between US Renewables Group and United Technologies Corp. (UTC), adding thermal storage capacity to solar thermal plants increases the profitability of such plants and leads to greater ratepayer benefits because the increased cost for storage is more than offset by the increased peak power capacity.

D. The Once-Through-Cooling shutdown timetable needs to be pinned down to allow for accurate LTPP planning

The once-through-cooling ("OTC") shutdown timetable has not yet been determined by the agencies running this process and it will never be a fully defined schedule because no state agency can dictate replacements for plants that are shutdown; accordingly, if an OTC plant is needed for reliability purposes it is in the owner's discretion whether it will be shut down and/or replaceed.[1] Many gigawatts of existing power plants may be retired under this program, but we don't know yet when this may be realized. Moreover, some plants will be replaced by modern peaker plants, whereas others may not be replaced at all. Accordingly, the Commission should work with the relevant state agencies and working groups to pin down, as much as is possible, the likely timetable for such retirements and/or replacement plants.

II. Conclusion

For all the reasons discussed, the FIT Coalition believes that many large outstanding issues should be resolved before substantial progress can be made on renewables integration planning.

Respectfully submitted,

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[1] The most recent update, from March, 2010, by the Energy Commission, is available at: http://www.energy.ca.gov/2009publications/CEC-200-2009-018/CEC-200-2009-018.PDF.

CERTIFICATE OF SERVICE

I hereby certify that I have served by electronic service a copy of the foregoing **FIT COALITION COMMENTS ON RENEWABLES INTEGRATION MODELING** on all known interested parties of record in R.10-05-006 included on the service list appended to the original document filed with this Commission. Service by first class U.S. mail has also been provided to those who have not provided an email address.

Dated at Santa Barbara, California, this 21st day of September, 2010.

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