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December 3, 2008

California Energy Commission
Dockets Office, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

Re: Docket No. 09-IEP-1G and No. 03-RPS-1078

Below are my comments on the CEC Feed-in Tariff Final Report.

The California Energy Commission, its staff and consultants are to be commended for undertaking one of the most thorough reviews of feed-in tariff policy and how it could be used in North America. Though the CEC staff and their consultants have attempted to be as thorough as possible they have made several oversights.

There is insufficient attention in the documents to the French system of differentiated tariffs for wind energy or the proposed variation in Ontario, Canada. More worrisome is that the summary documents refer to tariff differentiation by technology and size, but not by resource intensity. The latter is an absolute necessity for wind energy, especially development by farmers and community groups who can't migrate to the windy passes.

Further, the limitation of project size to 20 MW, while consistent with the IEPR's initial recommendation offers no compelling justification for this specific amount. It could just as easily be 200 MW as 20 MW. Spain limits projects on its fixed-price track to 50 MW and that is a much more reasonable size than 20 MW.

Limiting projects to only 20 MW will not enable most wind projects or concentrating solar power plants that are typically much larger than 20 MW. As noted in the report, there are no project size limits in Germany. The project size limit should be lifted entirely or to at least 200 MW and certainly no less than 50 MW.

Contract terms should be no less than 20 years. Shorter contracts require higher tariffs and lead to sticker shock that deters public servants from setting realistic prices. Longer terms allow lower initial tariffs. Shorter terms lead to higher tariffs and greater resistance to setting a fair price.

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Degression is mentioned frequently in the report and the use of this term implies that the cost of generation always declines from one year to the next. This is not the case as illustrated by the 2009 tariffs for wind energy in Germany. Degression should be use only sparingly if at all.

While there was discussion of the methodology for setting the tariffs, it was insufficiently detailed. This is a crucial area of feed-in tariff design. My experience has shown that many in the industries affected by feed-in tariffs have inflated expectations of the profitability of their own products. Thus, it's important to begin discussions of the methodology and the assumptions for setting the tariffs as early as possible. These discussions should not be delayed. The CEC should immediately launch a series of workshops on this matter.

I recommend that the CEC, PUC, and stakeholders also be clear about the distinctions between the need to set tariffs high enough to drive rapid development. To do this, I recommend the use of the Chabot Profitability Index method for calculating the tariffs. This is simple economic model—as opposed to a financial model—that can be used transparently to set the tariff level. Information on this model and how to use can be found on the web.

The Ontario Sustainable Energy Association (OSEA), in preparing its tariff case for its preferred system of Advanced Renewable Tariffs in the province, used the Chabot model. Experience has shown that the current tariff levels for wind and solar energy in France and Germany are not unsurprisingly similar to those proposed by OSEA in Ontario.

I have made several initial calculations of the tariffs that would be needed for wind and solar energy in California using this technique. They are posted on my web site at [California Renewable Energy Sources Act Proposed Tariffs](#).

Below are comments on specific pages.

Pg. 33, Incorrectly characterizes Spain with only a one track feed-in tariff program and that with premium on top of the wholesale price. This ignores the second track of a fixed-price program for projects less than 50 MW. The previous table would need to be modified as well.

Pg 35. Incorrectly characterizes contract terms. Many if not “most” countries use contracts greater than 15 years. Those countries developing the most capacity all use terms 15 years or greater and nearly all are 20 year terms or greater. Contracts of 15 years or longer are preferable for keeping the initial tariff as low as possible to avoid “sticker shock” among regulators and the public, assuming that projects are partially or totally protected from inflation.

Pg. 38. The correct term is “degression”. It is misspelled here and throughout the document as digression.

Pg. 38. Incorrectly characterizes French inflation protection as a means to “account for increases in operating costs”. This is the case in Ontario, where inflation protection is only 20%, but it is not true elsewhere. In France, and in properly designed tariffs, inflation protection is intended to protect equity invested and debt at risk from inflation. That is, without inflation protection the initial tariff must be higher to accommodate inflation risk. With inflation protection, the initial tariff can be lower than otherwise. It is also important to note that in the French program, tariffs inside the contract are protected from inflation as are the tariffs for new projects. This is a subtlety of the French program that should be emulated in the California program.

Pg 40. It is important to note in the discussion on “degression” that prices (tariffs) may go up, not down. The use of the word degression and its use in policy assume that costs always decline and that has clearly not been the case. Germany’s 2009 tariffs will substantially raise the tariffs on both onshore and offshore wind. Thus, it’s wise for programs in their early phases not to use degression until there is ample field experience to justify their use.

Sincerely,

A handwritten signature in black ink that reads "Paul Gipe". The signature is written in a cursive style with a large, looping initial "P".

Paul Gipe