08-IEP-1
DOCKET
03-RPS-1078
DATE
RECD. OCT 10 2008

Comment on Docket No. 08-IEP-1 and No. 03-RPS-1078 (Feed-In Tariffs)

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Thank you to the Energy Commission for the continued consideration of new financing mechanisms for clean energy. Thank you also for the opportunity to submit comments on Docket No. 08-IEP-1 and No. 03-RPS-1078, which propose a number of routes to apply feed in tariffs to California's power generation market.

For the last year or so, I have been exploring some of the ramifications of a future all- or largely renewable energy system for highly developed industrial society, which I have called a Renewable Electron Economy. In thinking of renewable electricity generators as part of a future integrated electricity system, one comes up with slightly different emphases in policy and technology than one does if one starts from the current technologies and balance of political and economic forces that influence energy policy. In California state policy, AB 32 is the most comprehensive goal-setting legislation in the area of a future energy system, though this legislation does not specify how its ambitious GHG reduction goals could be achieved.

I believe the Energy Commission's recommendations in the area of feed-in tariffs can be strengthened if they see feed in tariffs as a one instrument to get us closer to a California that will be able to meet and exceed our ambitious AB 32 GHG emission reduction goals. If the CEC's work on feed-in tariffs is discussed within the context of the broader deliberations about AB 32, it will be of mutual benefit and refine both pieces of legislation.

Choosing Among and From the Proposed Policy Paths

In the Draft Consultant Report "California Feed-In Tariff Design and Policy Options" CEC-300-2008-009-D, not a single proposed path but a combination of paths would, I believe allow Californians to get the full benefit of feed-in tariff policy. Path 3 and Path 6 in combination, or some integration thereof, would allow for the most rapid expansion of a diverse portfolio of renewable generation resources with the lowest per MW cost to California ratepayers. Path 3 with its focus on larger generators in the CREZ areas, would allow large renewable project developers in these areas to gain easy financing as well as allow utilities to more rapidly achieve their RPS goals than they otherwise could with traditional financing mechanisms. Path 6 will allow smaller project developers and self-generation projects to gain financing, broadening and more widely distributing California's renewable energy mix.

Choosing either of these paths in isolation, would, I believe, continue unfortunate divisions in California's and the nation's renewable energy industry that have undermined previous efforts at reform. The success of the Spanish and German renewable energy laws are in part predicated upon the support for large and small renewable energy development. Choosing Path 6 alone, for instance, would result in the

net cost per MW of a future California FIT trending much higher than an integrated Path 3 plus Path 6 FIT law, as acknowledged in the Draft Consultant report. Furthermore, if chosen alone, Path 6 tends to reinforce the perception of renewable generators as "niche" generators rather than replacements for fossil generation.

Supporting Key Services: Baseload, Storage, and Dispatchable Generators

Feed in tariffs are designed to help emerging renewable technologies gain a foothold in the commercial generation market. Currently commercial fossil or nuclear generators use energy stores (fossil and fissionable fuels) to generate electricity, which allow them to function as baseload and/or dispatchable generators of other types. For most renewable generators to replace fossil generators, they must allow utilities and power system operators to provide a similar level of service to power customers who can in most circumstances simply plug-in and get all the power that they need. While there are a number of new technologies and grid system proposals that may go some way to substitute for the characteristics of fossil and nuclear generators, there are existing renewable generators that are more "grid-friendly".

The Spanish premium tariff system in particular as well as it's forecasting requirements have been more supportive of creating a renewable energy mix that participates more fully in the wholesale generation market and incentivizes, for instance, the building of solar thermal with the vital thermal energy storage component. Here in California, as it stands, our current policy environment has not groomed, solar thermal, for instance, as the next generation in summertime baseload power. A feed-in tariff system designed along the Spanish lines or, better yet, specified for California's mandate to transition to non-fossil generation in the next decades, would allow California's electricity grid to become less crucially dependent upon natural gas or out of state coal generation.

In fact, though I prefer a multi-technology feed-in tariff system, a tariff system that incentivized the building of solar thermal electric with 6-8 hours of storage and a tariff that incentivized the building of CSP with 16 or more hours of thermal energy storage could remove a vast majority of California's need to use fossil generators within the period of a little more than a decade. California's critical dependence on natural gas for electricity generation would also be eliminated by such a plan.

Attributes of a Successful Feed in Tariff Law For California

1) Cost-based Accounting
2) 20 year contracts
3) Degression of Tariff over successive generations
4) Costs are spread across the widest rate-base
5) All renewable technologies
6) Sized from utility scale to household sized self-generation technologies (no 20MW cap project cap)
7) Rewards grid-friendly technologies and generator operation.

8) Grooms renewable generators to replace some or all of the functions of fossil generators.

Thank you for this opportunity to share these views on this vital matter.

Sincerely,

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