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California Energy Commission
Dockets Office - No. 08-IEP-1 and No. 03-RPS-1078
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RE: Renewable Energy "Feed-In" Tariffs Workshop:
Preparation of the 2008 Integrated Energy Policy Report Update and the 2009 Integrated
Energy Policy Report (Docket 08-IEP-1); Implementation of Renewables Portfolio Standard
Legislation (Docket No. 03-RPS-1078)

Energy Commission Policy Support for Feed-In Tariffs

Sierra Club California appreciates the opportunity to provide input to the California Energy Commission as it considers both the design and policy option for the use of feed-in-tariffs (FIT) in California during the preparation of the next Integrated Energy Policy Report.

Sierra Club California believes that California needs to adopt a 33% Renewable Portfolio Standard (RPS) goal now. This is necessary for meeting AB 32 climate protection goals, for improving air quality, and for reducing reliance on depleting fossil fuel resources.

In doing so, we have endorsed the implementation of a FIT for renewable projects, which would count toward the purchasing utility's RPS goals, and could be modeled on the most successful FIT programs that have achieved renewable energy goals in Germany, Spain and France.

The feed-in tariff, also known as an advanced renewable tariff, can either complement or entirely replace the competitive procurement in an RPS¹ by establishing a tariff requiring utilities to purchase renewable energy from renewable generators in their service area at fixed rates per kilowatt-hour (kWh) and requiring standard offer contracts for utility purchase of the electric power.

Payment structures such as tax credits and standard offer contracts have been successful at building renewable energy.

These are most effective when the following principles are adopted:

- They are performance-based, offering payment for actual kilowatt-hours delivered
- Payments allow full cost recovery and fair profit to investors & developers
- Payment levels are fixed in advance and provide long-term market stability

¹ Cal. Pub. Util. § 399.11 et seq.



While federal tax credits have built most of the wind power in the US, there have been frequent lapses in the credit. This has led to a “boom-and-bust” cycle in the wind industry that has stifled the growth of domestic manufacturing capacity. In this uncertain policy climate, investors are hesitant to commit money to manufacturing capacity, and wind farm developers have difficulty growing their business.

Well designed FITs would allow the state to take charge of its own incentive structure for renewable energy without subjecting developers to the risks of arbitrary federal tax policy. Under a FIT, the Investor-Owned Utilities (IOUs) would provide fixed contract terms and prices — for each renewable technology — that allow full cost recovery, plus a reasonable rate of profit.

This system has been very successful when proper prices are established. Indeed, full cost recovery plus a fair rate of return has always been a standard regulatory principle for utility companies, especially for assets that they own. It is a powerful incentive that is responsible for building most of the nation’s electric infrastructure. FITs apply this same effective principle to renewables, and have been established in many countries throughout the world. Michigan, Minnesota and a few other states are currently considering establishing FITs, while California is experimenting with this payment structure for a couple of narrow applications. Adopting a well-designed FIT program for a range of renewable technologies would remove several barriers to their development.

Sierra Club California urges the CEC to recommend a comprehensive FIT policy that does not conflict with programs such as the California Solar Initiative, and existing contracts granted under the RPS. A full FIT program can be launched alongside the existing RPS program but independent from it. While utilities can continue to solicit contracts to meet their obligations under the RPS, it is likely that full implementation of a FIT will displace the current process. Also, FITs should not be based on the Market Price Referent, a price standard which has proved ineffective at increasing use of renewable energy. Instead they should be based on the cost of generation plus a reasonable profit. In some cases, the feed-in tariff may be less than the Market Price Referent.

A FIT policy should include full market implementation of a program with the following characteristics:

- no project-size caps
- no total program limit within the ultimate RPS
- differentiated tariffs based on cost of generation plus reasonable profits
- contracts with a length of at least 20 years
- contracts open to all
- immediate implementation

In general, a feed-in tariff will be easier to promote if rate impacts are minimized. This can be accomplished by applying a variety of techniques. First, most technologies benefit from economies of scale. For this reason, eliminating project size caps—and applying size-differentiated tariff rates—will lower the average cost per kilowatt-hour of electricity purchased under the program. Second, a mix of lower cost technologies, such as wind and geothermal, can offset higher cost technologies such as solar and renewable fuel cells. This is why a comprehensive program is better than one that is limited only to more expensive market applications. Third, longer-term contracts allow for longer

cost recovery times and, in general, lower tariff rates. Fourth, the feed-in tariff itself helps to contain costs by reducing financial risk and therefore required rates of return on capital intensive projects.

Sierra Club would also like to see a FIT placed within the context of a larger planning framework. The commission should consider the design of an electric grid with 33%, 50% or more renewable power. Renewable resources each provide unique power supply profiles, and there will certainly be ultimate size and integration constraints for the total amount of each resource or technology type. This sort of planning was recommended by the commission in the past IEPR. Defining large scale integration requirements will also help to define—and potentially contain—the ultimate cost impacts of a FIT and RPS program. Even more importantly, a planning framework allows different programs, such as FITs, CSI and RPS to work in a coordinated way toward a common goal of transforming the current electric supply into one based on renewable energy.

Another major concern is that FITs should be implemented together with improved sustainability goals. Even renewable energy can have adverse impacts, and it is critical that a payment structure not reward projects that damage the environment. California only has very limited protection in its current renewable law, namely the size restriction on small hydro of 30 megawatts, and forbidding new impoundments of water. This is hardly sufficient to protect water resources and aquatic life, and does nothing with respect to other sources of renewable energy. For example, most of the state's geothermal plants allow the steam to escape into the atmosphere, which depletes the resource and can contaminate the environment. Closed-loop, binary systems keep hazardous materials underground while preserving the steam resource. And, preferably a FIT should support local resources near load centers. This would have the powerful effect to rapidly increase the amount of distributed generation, while avoiding the development risks, financial expense, and environmental damage associated with long-distance transmission. In particular, we believe that environmentally sensitive areas should be protected from the overdevelopment of renewable projects. A FIT should reward renewable projects with superior environmental practices that conserve our natural resources.

Thank you for your consideration

A handwritten signature in black ink that reads "Jim Metropulos". The signature is fluid and cursive, with the first name "Jim" and last name "Metropulos" clearly distinguishable.

Jim Metropulos
Senior Advocate