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BEFORE THE CALIFORNIA ENERGY COMMISSION

Preparation of the 2009 Integrated Energy Policy Report	)	
	)	
	)	Docket No. 09-IEP-1G
and	)	
	)	
Implementation of Renewables Portfolio Standard Legislation	)	Docket No. 03-RPS-1078
	)	RPS Proceeding
	)	

**COMMENTS OF FUELCELL ENERGY, INC. ON
RENEWABLE ENERGY “FEED-IN” TARIFFS**

Following the December 1, 2008 CEC workshop addressing renewable energy feed-in tariffs, stakeholders have been invited to submit comments that will further contribute to the consensus on this policy. In its capacity as a stakeholder, FuelCell Energy, Inc. (“FCE”) respectfully submits the following comments.

FuelCell Energy, Inc. is a manufacturer of large stationary fuel cell power plants with multiple units operating on renewable fuels throughout California. FCE’s products operate on a variety of renewable feedstocks and range in size from 300 kW to 2.8 MW in output. While FCE’s systems in California have exclusively been deployed with the support of the Self-Generation Incentive Program (“SGIP”), the availability of a suitable feed-in tariff would result in a greater proliferation of fuel cell systems and their associated environmental benefits. Moreover, FCE’s systems are able to convert diverse and disparate sources of renewable biogas at the highest possible efficiency and thus can deliver more renewable energy to California while larger scale renewable transmission issues are deliberated.

FCE noted with great satisfaction that a growing consensus supporting the principles of Policy Path 6 can be readily identified among many stakeholders. FCE wishes to reaffirm its continued support for this approach to the creation of a new feed-in tariff as the prerequisites for a successful program are embodied within Policy Path 6.

Based on the stakeholder discourse during the December 1 session, FCE believes the following areas merit further consideration by the Commission:

- The feed-in tariff currently proposed by the CEC represents an established and successful alternative to the existing RPS procurement scheme that will enhance market competition to generate and deliver cost-effective renewable power.

- The feed-in tariff approach enables project developers to deliver cost-effective renewable energy to California by dismantling an artificial alignment with the MPR.
- The feed-in tariff program would further enable project developers to overcome size and transaction limitations in existing programs that currently inhibit a broader usage of renewable resources.
- A feed-in tariff program that intelligently incorporates resource planning and reasonable technology caps can simultaneously serve the interests of both ratepayers and industry stakeholders.

Feed-in Tariff as an RPS Procurement Alternative

As noted in the written comments submitted after the October CEC session and during the December 1 workshop discussions, a minority of opinions among vested stakeholders continue to support retaining the existing RPS procurement scheme as the exclusive mechanism for renewable procurement and contracting. These same stakeholders express concerns that the proposed feed-in tariff would undermine the current RPS procurement process and might diminish competitiveness in the renewables marketplace.

In response to these concerns, FCE believes the Second Draft Consultant Report (“Consultant Report”)¹ accurately identifies a fundamental deficiency in the existing RPS procurement scheme wherein projects less than 20 MW in output are unable to contribute their energy due to high transaction costs. This documented complexity and high cost suggests that existing RPS procurement practices are ineffective for this resource sector and an alternative approach should be developed that will enable a broader range of participation by more diverse projects. There is empirical support for this conclusion. As noted in the Consultant Report the European Commission decisively determined feed-in tariffs to be the most effective mechanism for stimulating the deployment of more renewable energy. A comparison of growth rates for European versus California renewables effectively and categorically demonstrates how our existing procurement approach doesn’t work and strongly suggests the need for a feed-in tariff as an alternative.

Of particular interest to FCE was the cited example of the growth of the German biogas market described in numerous excerpts as “explosive” as a result of Germany’s biomass feed-in tariff. Based on its current work in California’s biogas market, FCE is confident that a similar growth rate is readily attainable here once a suitable feed-in tariff is implemented.

As noted in the German and Austrian feed-in tariff examples, a significant number of smaller agricultural-methane sources have contributed to the “explosive” growth of this renewable energy sector. Under the current RPS configuration, the profusion of biogas sources that could generate up to 20 MW of output have no viable market mechanism for

¹ Second Draft Consultant Report, *California Feed-In Tariff Design and Policy Options*, California Energy Commission (November 2008).

converting this resource to marketable energy. By substantially increasing the total population of eligible renewable energy generators or sellers, a more comprehensive degree of market competition will result. The subsequent increase in manufacturing volume for renewable technologies like fuel cells will directly translate into system cost reductions. These same cost reductions will further enable participation of small farmers and other budget constrained public sector participants that currently have biogas but can't afford to execute existing RPS procurement agreements. Thus, a feed-in tariff will precipitate significant growth in the number and location of renewable energy sellers competing in the market. This enhanced range of competition will deliver economic benefits to ratepayers while simultaneously creating improvements in air quality through California's diverse agricultural communities where most of these sources are located.

Cost-Based Advantages over MPR Alignment

Recognizing that the preferred approach to a feed-in tariff as embodied in Policy Path 6 will dismantle the current alignment with the MPR, some stakeholders have expressed concerns about being obligated to purchase "overpriced" renewable energy. FCE recognizes these concerns and acknowledges the importance of balancing the societal goals of renewable development and ratepayer cost containment. However, concerns regarding pricing do not justify discarding the concept of a feed-in tariff altogether. Indeed, concerns about pricing are directly addressed by components of the proposed feed-in tariff program.

The Consultant Report describes the development of selected technology working groups that would carefully analyze the cost structures of generating renewable energy via eligible resources. FCE is confident that such working groups can effectively ensure a competitive and reasonable cost-based tariff rate assignable to the participating renewable technologies.

In conjunction with the development of a technology working group, the underlying costs of renewable generation can be determined, based on sound analyses by industry experts capable of objectively quantifying the net value of these energy sources for California ratepayers. Analyses such as these have been performed on behalf of ratepayer advocates in other proceedings and have formed the basis for incentives in programs such as the \$3 billion California Solar Initiative. Moreover, the pressure for project performance and increasing cost-effectiveness will rest firmly with the developers and manufacturers seeking to validate the operational capabilities of their systems.

It should also be noted that a central theme in the current renewable energy discourse involves the obstacle of inadequate transmission infrastructure. In order to reach renewable and greenhouse gas reduction targets as quickly as possible, it is important to enable the participation of more diverse projects below the 20 MW threshold, as many of these will not be dependent upon the construction of extensive transmission lines to connect them to target loads. As further noted in the Consultant Report, a cost component of the feed-in tariff should recognize the value of placing generation assets near target loads as a means of transmission infrastructure cost savings.

Feed-in Tariff as Alternative to Existing Programs

FCE acknowledges the importance of programs such as SCE's biomass standard offer and applauds SCE for taking the initiative to engage with the market participants operating below the 20 MW threshold. Furthermore, FCE is also mindful of the work of the CPUC in administering the SGIP program, and FCE intends to continue to participate in this program for its remaining term. Nevertheless, programs such as SCE's and the SGIP contain critical limitations (in size, funding and availability) that inhibit the proliferation of renewable energy and the development of new resources and markets. While FCE is grateful for the continued availability of SCE's program and the SGIP, the implementation of a technology-specific feed-in tariff is vital to California's successful attainment of its RPS goals.

Smaller communities with older landfills that could deliver new renewable energy function as effective examples of why existing programs such as SCE's biomass standard offer and the SGIP approach are ineffective in this market segment.

In the case of the SCE program, the alignment with the MPR fails to contemplate the costs associated with gas cleanup and removal of contaminants on an ongoing basis. These costs as well as the ongoing operations and maintenance expenses of the project leave no prospects for a project developer to secure financing for the construction of the project. Moreover, the uncertainty regarding the limited program duration (SCE's website currently indicates that the biomass standard offer is set to expire on December 31, 2008) further diminishes the likelihood of projects securing financing. SCE's program guidelines also describe SCE's plan to gather "batches" of projects and submit them to the CPUC for group approval when a sufficient quantity is obtained. This added element of uncertainty could discourage many projects as the delay encountered while waiting for a "batch" agreeable to SCE develops would further disaffect potential customers and finance sources alike.

This same landfill project site is also ineligible for participation in the SGIP, as the guidelines limit the output of the generation technology to less than the peak load of the host facility. For landfill gas sources, there is typically little or no electrical load at the site and these potential renewable sources are subsequently unable to offer their contributions to California's RPS goals. Similar constraints are also exhibited by ag-methane projects with low on-site electrical loads but high quantities of available biogas that could serve the needs of the community if their potential electrical output were made economically viable through a feed-in tariff.

Resource Planning to Limit Oversubscription

Despite widespread acknowledgement that California is far short of its mandated RPS goals, some stakeholder comments inexplicably suggest the need for caps designed to prevent an "oversubscription" of renewable energy projects. To the extent that proponents of the cap hypothesize an unmanageable flood of renewable projects, the

argument is unsupported and inconsistent with experience in the U.S. and other countries. Indeed, a flood of new renewable energy projects is exactly what is needed, as long as regulators take care to ensure that project integration and system reliability concerns are addressed. To the extent that proponents of a cap on subscription to a feed-in tariff are focused on reliability concerns, FCE submits that such concerns would be more effectively addressed at the policy level. Certainly the timing and delivery of some intermittent renewable energy sources raise system integration issues, and these resources may benefit from established long-term integrated resource planning analyses. However, it should be noted that the continuous baseload output from fuel cells operated on biogas does not implicate such reliability concerns. Baseload renewable technologies provide demonstrable value to the California Independent System Operator and to the reliable operation of the grid, and there is no logical justification for establishing an arbitrary cap limiting the introduction of these renewable resources.

In closing, FCE would like to reaffirm its confidence in the tangible growth of new renewable energy projects that would be precipitated by a feed-in tariff. FCE believes a quote from the European Commission included in the Consultant Report succinctly describes why such a program is needed here in California: “The primary driver for success was the investor security created by the feed-in tariffs resulting in low financial risk, low financing costs, and rapid market growth.” FCE looks forward to achieving such success here in California.

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/s/ Jeff Cox

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