

**BEFORE THE COMMITTEE WORKSHOP OF THE CALIFORNIA ENERGY
COMMISSION RENEWABLES COMMITTEE
OF THE STATE OF CALIFORNIA**

Preparation of the 2008 Integrated Energy Policy
Report Update and the 2009 Integrated Energy
Policy Report

And

Implementation of Renewables Portfolio
Standard Legislation

2009 IEPR – Feed-in Tariffs

Docket #08-IEP-1

And

Docket #03-RPS-1078

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**SOLFOCUS, INC. COMMENTS ON THE 2009 IEPR FEED-IN TARIFFS POTENTIAL
POLICY PATHS FOR EXPANDED FEED-IN TARIFFS IN THE STATE OF
CALIFORNIA**

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The document, *California Feed-In Tariff Design and Policy Options*, prepared by Kema, Inc. for the California Energy Commission outlines six potential policy paths for the expansion of feed-in tariffs and how this policy mechanism can be used to encourage deployment of renewable energy technologies across California to meet the renewables portfolio standard (RPS) goals. California has the most robust renewable energy and environmental policy in the nation, which has played a significant hand in enabling the market for renewable technologies. Despite this progressive policy, California is short in meeting the current RPS goal of 20% by 2010. The California Energy Commission (CEC) estimates that the state is only meeting circa 12% of this goal¹ and that an additional 29,000 gigawatt hours (GWh) of production is needed for compliance. If the RPS is increased to 33% by 2020, as proposed under the AB32 Scoping Plan, an additional 70,000 GWhs will be needed for compliance². New generation will need to be brought online quickly, with considerations of cost, reliability, and lifetime performance.

SolFocus is a three year old company headquartered in Mountain View, California, that has

¹ California Public Utilities Commission report "Status of California's Renewables Portfolio Standard", June 30, 2008.

² Presentation by Paul Douglas, Division Supervisor, Renewable Procurement & Resource Planning. 2008 Solar Symposium at UC Merced, September 26, 2008.

brought a concentrator photovoltaic (CPV) solar energy system to the global marketplace. Worldwide, SolFocus employs 151 people; 98 of which are based in California. SolFocus was selected as one of three concentrator photovoltaic (CPV) companies to participate in the Spain's ISFOC³ program as part of the government of Castilla la Manchas's public private partnership (PPP) connecting the emerging CPV technology to the Spanish grid. In September 2008, SolFocus finished commissioning its 500 kilowatt installation as part of the ISFOC program and is generating electricity that is being sold under contract as part of the Spanish Royal Decree for a feed-in tariff (FIT). The FIT enabled the program's success in attracting private investment. SolFocus is now ramping up US sales activities, primarily in California, and with the recent listing of the SolFocus CPV module on the CEC's list of approved equipment, the company is experiencing heightened activity around developing contracts for equipment sales and solar project development. This increase in activity is heavily aided by the ability for customers to participate in the California Solar Initiative's performance based incentive program.

SolFocus' business model in the U.S. and Europe is being shaped by renewable energy and climate change policies, and in kind, its CPV technology offers stakeholders across the state tools for compliance with these regulations and policy goals. The addition of new renewable energy technologies, such as CPV, will play an important role as the state of California strives to meet policy objectives of increasing solar energy generation statewide and meeting renewable portfolio standard targets; with these policies in place, California is well poised to lead the nation in solar energy usage.

Below are SolFocus, Inc.'s comments to the Kema consultancy report *California Feed-in Tariff Design and Policy Options* and the questions outlined in Attachment A of the workshop announcement. SolFocus thanks the California Energy Commission for opening up this dialogue and providing the opportunity for industry stakeholders to engage in the design process of an expanded feed-in tariff policy, which we feel is an important step in the development of renewable energy generation in the state.

³ www.isfoc.es

A. Representative Policy Paths

1. Of the representative policy paths described in the draft report, which are most appealing? Least? Why?

Of the six policy paths presented, we feel that policy path #6 – “Full market < 20MW cost differentiated by technology and size” is the most appealing. This policy path is most appealing for many reasons. First of all, it would be implemented immediately to address the challenge of meeting current RPS goals and not waiting for a failure trigger. Waiting to act until a failure trigger is reached is not a proactive approach, California is a role model and benchmark for other states with regards to energy policy, and waiting for policy objective failure could send a message that RPS policies are not possible. Secondly, the long-term pricing of a fixed contract, as outlined in this policy path, makes a stable investment case for renewable energy generation and has proven in Spain and Germany to attract private investment. With an established FIT, public-private-partnerships (PPPs) have a strengthened financial framework to attract outside investment; this is a lesson learned from the government of Castilla La Mancha’s program ISFOC in Spain. Furthermore, public entities, such as city governments, community colleges, and municipal utilities will have increased access to renewable energy generation capacity to meet public demand. Thirdly, a tariff differentiated by technology and project size would provide a market-based mechanism to spur the types of renewable generation the state sees a need to increase by placing a higher market value on these technologies. Lastly, policy path 6 encourages wholesale distributed generation (WDG) by a variety of renewable energy technologies closer to demand; both on-site generation behind the utility meter and for power producers looking to reduce transmission issues and locate generation closer to demand centers.

Currently, there is a programmatic gap to encourage renewable energy installations in the 1-20 MW range; the CSI program incents under 1 MW, AB1969 incents a maximum of 1.5 MW, and RFP solicitations under the RPS program favor installations with capacity over 20 MW. Policy Path 6 addresses this programmatic gap and would incent WDG in the 1-20 MW range, and thus allow for improved economies of scale and facilitate entrance of new technologies with improved efficiency. Furthermore PPA-type WDG reduces the need for industrial off-takers, the state, or

utilities to assume the burden of new technology risk and the maintenance associated with renewable facility capital investments.

The least appealing of the policy options are # 1 and #5. The two concerns with policy path 1 are that it does not initiate until a failure in current RPS mandate is met, which is concerning for reasons previously mentioned, and it could potentially limit emerging, improved efficiency technologies. California has been the incubator of new, more efficient, scalable technologies; these technologies could play a significant role in helping the state meet RPS goals and limiting them could stymie progress. Policy Path 5 is unappealing due the fact that it limits RPS technology offerings to biomass, which has limited capacity across the state. Biomass is a great renewable technology and should be part of the state's portfolio of renewable technologies, but should be looked upon as one of several tools to meet RPS goals.

2. Which policy paths are most appropriate for implementing in the near term, midterm, and long term?

The policy path most appropriate for implementing in the near term, is Policy Path 6. This path does not limit technology and offers a variety of renewable technology resources that can be used to meet RPS goals, while allowing for the entrance of new and emerging technologies in the future. This policy path offers the most flexibility to adapt to California's changing renewable landscape as more renewable generation comes online.

3. Does the California Public Utilities Commission have authority to implement an expanded feed-in tariff through the proposed paths?

Yes, it is our impression that the CPUC has the authority to implement an expanded FIT through the suggested policy paths.

4. If no, then what additional statutory and/or regulatory authority or policy direction is needed or recommended to implement any particular path?

The current FIT standard offer contracts regulated by CPUC pursuant to AB1969 are not economically viable for solar projects. SolFocus works with prospective customers

in determining the best incentive structure to use in order to mitigate costs associated with solar system installation and solar energy procurement. Given the current FIT prices, the financial viability of using the California Solar Initiative combined with net metering is the best path. This is primarily due to the fact that the FIT price in the contract is based on an MPR which is reflective of natural gas prices. This pricing benchmark does not embody the value of distributed generation that is close to the end user, and thus alleviates some of the costs associated with long-range transmission. Additionally, a FIT price based on the current MPR does not value the emission reduction value or value of other environmental attributes that renewable energies aim to address. A statute that allowed for the re-valuation of a renewable-specific MPR would provide a more accurate pricing mechanism for the FIT, and thus make the current and future FIT offer contracts economically feasible for a broader range of renewable technologies.

5. What are the pros and cons of automatically conditioning implementation of expanded feed-in tariffs to a future triggering milestone, such as failure of RPS solicitations to meet specified target?

California is a role model and benchmark for other states with regards to energy policy, and waiting for policy objective failure could send a message that RPS policies are not possible. Furthermore, if the state waits until RPS failure, we will be faced with a situation of having to catch up and deploy very rapidly, and with regards to a global marketplace where California is competing for a limited supply of manufactured technology, the state would run the risk of not having these resources available to invest in at the time they need them most. SolFocus' business plan is a testament to this very situation- the economic policy incentives and therefore demand are not as strong in California compared to Europe, therefore the solar systems being manufactured are being sent to Europe. Therefore, another con of waiting until triggering a milestone of RPS failure would be that sufficient renewable energy generating equipment may not be available.

A potential pro to waiting until failure would be that the state would have more time to calculate adequate pricing which values renewables and to tailor the policy to better meet the changing needs of California given renewable development over the past four

years.

B. Interaction with RPS & Other Policies

1. What are the primary attributes of feed-in tariffs and can they help to facilitate achieving the California RPS goal of 33% renewable generation by 2020?

Feed-in-tariffs should be looked upon as a mechanism to help the state meet RPS goals and have been shown in other countries to be the most effective policy mechanism to quickly and economically incent renewable deployment in order to meet renewable energy goals. Since FITs are a performance-based incentive, they pay based on the output of a system, therefore, incent and value technology efficiency. FITs and their associated standard offer contracts also provide a solid framework to ensure investor confidence; therefore attract long-term investment into renewable projects underpinned by a clear proof of cash flow enabled under the contract, thus attracting private investment into projects to help along the finance burden of public policy goals. Furthermore, with an established FIT, public private partnerships (PPPs) have a strengthened framework; this is a lesson learned from the government of Castilla La Mancha's program ISFOC in Spain.

2. Which policy paths are best suited to coexist with the current RPS solicitation process? Which are the most problematic?

The best policy path to coexist and support the current RPS solicitation process is Policy Path 6, as it is complementary to the current RPS process in that it covers generation which can be located at the customer site or closer to the demand load. Furthermore, it alleviates the issues associated with transmission. Policy Path 6 is truly the best suited to coexist with the current RPS process, where the other policy paths would present more problems, as outlined in this document.

3. How could expanded feed-in tariffs be used to maximize the use of CREZ transmission?

Expanded FITs could be used to maximize the use of CREZ transmission by providing a clear platform for public private partnerships to take place and to attract private investment in projects located in CREZ areas. Please refer to the example of

ISFOC mentioned earlier in this document.

4. How does a feed-in tariff process work with a market price referent (MPR) process? Is it conflicting? Competing/ Independent? Complimentary?

A FIT could work with a MPR, however, the current MPR used to calculate the FIT price does not adequately value renewable energy production to the state. The current MPR based on natural gas prices as a benchmark does not embody the value of distributed generation that is close to the end user, which alleviates some of the costs associated with long-range transmission. Additionally, a FIT price based on natural gas does not value the emission reduction value or the value of other environmental attributes that renewable energies aim to address. Current RPS policy and impending emission reduction policy being implemented places a high value on the environmental attributes of clean, carbon-free energy and should be valued accordingly, not benchmarked to a carbon-based energy source, for which these policies are aimed at reducing.