

Program Highlights

- ▶ SMUD's FIT program is the only successful FIT based on the value of electricity to the utility, and is one of the earliest FIT structures for CHP in the U.S.
- ▶ The FIT's application process is streamlined and simple; initial applications were sufficient to fill up the entire 100 MW of available capacity.
- ▶ The average payment for power will be 14-15¢/ kWh, an estimated \$28 million per year.
- ▶ The FIT supports the renewable energy goals of California and promotes renewable energy development within the Sacramento area.



Sacramento Municipal Utility District SMUD FEED-IN TARIFF PROGRAM

In January 2010, Sacramento Municipal Utility District (SMUD) began implementation of one of the first utility Feed-In-Tariffs (FIT) in the country for renewables, based on the value of the electricity to the utility, rather than the underlying costs of the generating technologies. The FIT amount is based upon SMUD's avoided cost of energy, including adders for avoiding GHG emissions costs and for avoidance of gas price volatility that would come from purchasing conventional power. For an average, around-the-clock, generating profile, SMUD's FIT amounts to about 11 cents/kWh, while for projects with increased generation in more valuable peak hours, SMUD's FIT will average about 14–15 cents per kWh.

Why a Feed-In Tariff?

Sacramento Municipal Utility District holds environmental leadership as one of its core values. The FIT program advances SMUD's commitment to empowering its customers with solutions and options that increase energy efficiency, protect the environment, and lower costs. Additionally, SMUD is committed to providing leadership in the reduction of the region's total emissions of greenhouse gases and to supporting climate change policies and initiatives. SMUD's FIT Program advances this philosophy in the distributed renewable generation arena.

SMUD's Feed-In Tariff program was developed prior to Senate Bill (SB) 32, which became effective at the beginning of 2010 and legislated a feed-in tariff be offered to generators in an amount based on a utility's proportionate share of the total demand in California. SMUD's share on this basis is 33.5 MW. The legislation also set a maximum per generator of 3 MW. To accommodate the variation between SB32 and its own requirements, SMUD set aside 33.5 MW of the 100 MW allotted under the program for renewable energy systems \leq 3MW.

Prior to the FIT program, large-scale distributed generation projects were not being developed due to the difficulty in competing with utility-scale generation. By offering standard rates and terms for the purchase of renewable power, as well as from combined heat and power facilities up to 5 MW in size, SMUD has created a market for power purchases from renewable facilities. Establishing the FIT program based on the value of energy to SMUD has made it easier to expand the program without undue impacts on SMUD's rates.

Additionally, the FIT program is likely to provide a large-scale deployment of PV technology within the SMUD area.

The SMUD Model

SMUD's FIT application process was developed to be streamlined and simple. Eligible applicants must have renewable or combined heat and power generating projects less than 5 MW in size and must be able to be connected to SMUD's distribution system, rather than to the transmission system. The program provides standard rates and contract terms for the purchase of renewable energy, on a time of use basis. SMUD estimates that the annual payment for power from FIT projects will be \$28 million per year. The average payment for power to PV projects is estimated to be in the range of 14-15¢/ kWh. These rates are based on



SMUD's avoided costs such as avoided long-term brown energy purchases, avoided generation investment, avoided greenhouse gas mitigation, etc.

SMUD's FIT is one of the earliest implementations of a feed-in tariff for renewables and is the only successful FIT based on the value of energy to the utility, rather than on the technology costs of the renewable energy system.

Implementing the FIT

SMUD's FIT program has an initial cumulative limit of 100 MW, and 66.5 MW of eligible projects must be less than 5 MW in size while 33.5 MW of projects must be less than 3 MW. Applicants fill out a simple, one-page application form, provide an interconnection form, and include a reservation deposit of \$20/kW and an interconnection review fee. On its first day of operation, the FIT program received enough applications to fill up its 100 MW capacity, with all of the applications for solar PV.

The FIT program provides standard rates and contract terms for the purchase of energy. The program benefits will be measured by the megawatts of Renewable Energy Credits (RECs) produced, the percentage of SMUD's renewable energy portfolio provided by the FIT, and, if applicable, the megawatts of installed, efficient generating capacity from combined heat and power projects.

Judges' Comments

This structure represents a model for successfully deploying the feed-in tariff model in the U.S. It's an important model for the renewable energy policy world to consider, in light of recent challenges to FIT models that are based on technology costs. Time will reveal the success of SMUD's model—but this gem in the rough has the potential to drive a lot of renewable online in the near future.



About the Sacramento Municipal Utility District

The Sacramento Municipal Utility District is a community-owned electric utility governed by a seven-member Board of Directors. Serving 592,000 customers and a total population of about 1.1 million, SMUD is the sixth-largest public utility in the country. SMUD has been providing public power to the Sacramento region since 1946. The SMUD Board's vision is to empower its customers with solutions and options that increase energy efficiency, protect the environment, reduce global warming, and lower the cost to serve its region. SMUD's energy efficiency and renewable energy programs are recognized nationally for their leadership and innovation.

For more information

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