



California Energy Commission

Update on CPUC Progress on Feed-in Tariffs for Small-Scale Projects

California Energy Commission

Joint Renewables and IEPR Committee Workshop

Exploring Feed-in Tariffs for Renewable Energy Projects over 20 MW

May 28, 2009

Brendan Keeler

Renewable Energy Office

Energy Efficiency and Renewables Division



CPUC Staff Unavailable to Provide Update for this Workshop

- CPUC is considering the expansion of feed-in Tariffs in Rulemaking 08-08-009.
- CPUC staff was invited to speak on the status of feed-in tariffs but was not available to attend.
- CPUC staff reviewed the following summary.



Background

- 2007 IEPR (p. 147)
 - “The CPUC should immediately implement a feed-in tariff, set initially at the market price referent, for all RPS-eligible renewables up to 20 MW in size.”
 - “The Energy Commission should begin a collaborative process with the CPUC to develop feed-in tariffs for larger projects. Such tariffs should incorporate the value of a diverse mix of renewables as well as features of the most successful European feed-in tariffs.”



Background

- 2008 IEPR Update (p. 29)
 - “The CPUC should immediately implement a feed-in tariff program for all RPS-eligible generating facilities up to 20 MW in size. Such a program should include must-take provisions as well as cost-based technology-specific prices that generally decline over time and are not linked to the CPUC’s market price referent.”
 - “The Energy Commission and CPUC should continue to evaluate feed-in tariffs for renewable projects larger than 20 MW using the information in the Energy Commission’s report on feed-in tariffs expected to be completed in early 2009.”



Feed-in Tariffs Currently Available in California

- In Decision 07-07-027, the CPUC implemented the §399.20 feed-in tariff program for water and wastewater customers: tariffs/standard contracts for projects up to 1.5 MW in size; total program capped at 250 MW.
- http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/70660.pdf



Feed-in Tariffs Available in California

- “In Decision 07-07-027, the CPUC expanded this program to include SCE and PG&E customers other than water/wastewater and set a limit of 228.4 MW for this expansion, with feed-in tariffs available under this decision as of February 14, 2008. (2008 IEPR Update, p. 105)
- “On September 18, 2008, the CPUC issued Decision 08-09-033, which expanded the program to include all SDG&E customers as well.” (2008 IEPR Update, p. 105)



Feed-in Tariffs Available in California

- Senate Bill (SB) 380 (Kehoe, 2008) amended PU Code Section 399.20 to create one tariff that would apply to renewable facilities as well as water and wastewater facilities. The new tariff applies to SDG&E in addition to PG&E and SCE.



CA Publicly Owned Utility Feed-in Tariffs

- From SMUD's General Manager's Report and Recommendation on Rates and Services, March 2009:
 - *“Step 1b: Effective January 1, 2010 Feed-In Tariff This section proposes establishment of a Feed-in Tariff (FIT) to compensate customers for energy fed into the electric grid by customer-sited distributed generation within SMUD's service territory that meets District eligibility requirements. This includes generation sources that use renewable fuels (Renewable Generation) and generation that increases fuel efficiency by extracting heat for industrial or other on-site purposes (Combined Heat and Power, referred to as CHP).” (page 15)*
 - *“By standardizing our purchase offer, the FIT will streamline the time and effort currently required to contract with power generators. For customers, the FIT will provide a new opportunity to sell power at a fair market price from small-scale generation units.” (page 33)*



CA Publicly Owned Utility Feed-in Tariffs

LADWP Customer Solar Program

- “New Feed-in Tariff (FiT): A significant challenge to developing solar projects in Los Angeles has been the long-standing prohibition against non-LADWP entities from selling electricity to other customers on the local grid. A Feed-in-Tariff (FiT) program would help to bridge this problem by allowing a solar developer in the City to sell wholesale power directly to LADWP through a long-term contract between the private seller and LADWP. These third-party sellers could take advantage of tax incentives of 30-60 percent of the installation costs, and after 5-8 years may chose from several options including selling the solar systems to LADWP. The FiT goal is to install 150 MW of solar systems by 2016.”



Capacity under Feed-in Tariff/Standard Offer Contracts in California

Utility	Technology	Signed Contracts	On-line
SCE – Renewable Standard Contracts 1.5 MW to 20 MW	Landfill Gas	5 contracts for 14 MW ¹	Projects not online
SCE – CREST feed-in tariff < 1.5 MW ²	Landfill Gas	1 contract for 1.1 MW	Project not currently delivering
PG&E – SRG feed-in tariff < 1.5 MW ³	Hydro Landfill Gas Wind	4 contracts for 1.57 MW 7 contracts for 6.475 MW 1 contract for 1.5 MW	1 online (0.05 MW) Projects not online Project not online
PG&E – PWF feed-in tariff < 1.5 MW ⁴	Hydro	1 contract for .05 MW	Project not online
SDG&E – Feed-in tariffs < 1.5 MW	No contracts	None	None

¹Some projects originated from Southern California Edison’s Biomass Standard Contracts program that ended December 31, 2008

²The new CREST program is a consolidation of Edison’s WATER and CREST programs that were established as a result of AB 1969. Please visit

www.sce.com/renewables-standard-contracts.htm

³Small Renewable Generator <http://www.pge.com/b2b/energysupply/wholesaleelectricssolicitation/standardcontractsforpurchase/>

⁴Public Water and Wastewater Facility

<http://www.pge.com/b2b/energysupply/wholesaleelectricssolicitation/standardcontractsforpurchase/>



Expanded Feed-in Tariffs: CPUC Staff Proposal

	Existing FIT program	CPUC Staff Proposal
Size	0 - 1.5 MW	>1.5 MW – 10 MW
Utility Applicability	All CPUC IOUs	Only PG&E, SCE, and SDG&E
Total Program Size Cap	500 MW	Additional 1000 MW for this category
Contract Price	MPR	“No change” “A future phase of this proceeding will address what the appropriate price should be.”



California Energy Commission

Expanded Feed-in Tariffs: CPUC Staff Proposal (Continued)

	Existing FIT program	CPUC Staff Proposal
Location Restrictions	Must be an IOU retail customer	Must be within CAISO Controlled Grid
FIT contract terms	Each IOU developed own language based on D.07-07-027	New terms and conditions must be the same across all 3 IOUs
Length of Time to Achieve Commercial Operation	18 months, with opportunity to extend	18 months, with opportunity to extend online date by 6 months for regulatory delays
Excess Sales / Full Export	Choice of excess sales or full export	Full export only



California Energy Commission

Expanded Feed-in Tariffs: CPUC Staff Proposal (Continued)

	Existing FIT program	CPUC Staff Proposal
Development Security	None	\$20/kW
Performance Assurance	None	5% of expected total project revenue for projects (only applies to >5 MW – 10 MW)
Performance Obligation/Energy Delivery Obligation	Utility can terminate contract if deliveries are not made according to good utility practice or prudent electrical practices	Add minimum requirement: 140% of expected annual net energy production based on two years of rolling production



California Energy Commission

Expanded Feed-in Tariffs: CPUC Staff Proposal (Continued)

	Existing FIT program	CPUC Staff Proposal
Damage Calculation	Damages are actual direct damages; they are neither calculated by a formula nor capped	Capped damages equal to contract energy price minus average market price for the term year, but not greater than \$0.05 nor less than \$0.02/kWh
Insurance	SCE/SDG&E: \$2 million (>100 kW) PG&E: \$1 million (>100 kW)	No change
FERC Certification	Currently required	Not required



Stakeholder Comments: Price

- Parties had different perspectives on price:
 - Sierra Club CA: MPR “as currently constructed, is the largest barrier to renewables in California.”
 - Solutions for Utilities, Inc.: MPR “does not work.”
 - SCE states that CPUC may not set rates for wholesale power sales other than setting a rate for FERC-registered “qualifying facilities” at the avoided cost.
 - PG&E supports addressing price in a future phase and raised concern that absent a clear understanding of the price or product, customers may be harmed to the detriment of the RPS program.



Stakeholder Comments: Project Size

- Parties had varied positions on project size
 - LACCD does not support a program or project cap.
 - IEP, GPI, CEERT, Sierra Club, Community Environmental Council, Redwood Renewables support feed-in tariffs up to 20 MW. GPI also supports FITs beyond 20 MW.
 - FuelCell Energy supports up to 10 MW and over 10 MW on a case by case basis.
 - DRA, CALSEIA support FIT to 10 MW and standard contracts for 10 to 20 MW.
 - Utilities do not support FIT up to 20 MW:
 - SCE urges voluntary standard contracts instead of a mandated FIT program.
 - PG&E supports FIT up to 10 MW if appropriate terms and conditions adopted.
 - SDG&E supports FIT up to 5 MW.
 - TURN opposed to raising FIT to 10 MW.



Stakeholder Comments: Program Cap

- Range of views on proposed 1,000 MW cap
 - SCE: “no total program cap can set in a context that does not discuss price.”
 - PG&E supports 1,000 MW cap provided that terms and conditions help ensure deliveries of renewable power and fairly allocate risk. DRA supports.
 - CALSEIA and Joint Solar support 1,000 MW cap provided that IOUs can procure beyond cap at their discretion. First Solar supports 3,000 MW (2,500 MW beyond current 500 MW cap).
 - Redwood Renewables suggests cap of 2 percent of annual increase of total power use; FuelCell Energy: no cap needed.
 - IEP: “Setting a cap on the FIT will necessitate viability screening.”
 - Sierra Club CA: if state gets close to 1,000 MW cap, “increasing the cap in a timely way will be important for reducing the risk for developers that they might be pushed aside into an indefinite wait list.”



Timeline and Next Steps

- Comments were filed April 10, 2009
- Reply comments were filed April 17, 2009
- CPUC considering next steps, which may be to consider price before moving forward with a proposed decision
- CPUC is supporting if amended SB 32 (Negrete McLeod), and AB 1106 (Fuentes), two feed-in tariff bills currently proposed in the legislature¹

¹. <http://www.cpuc.ca.gov/PUC/legislation/posanalyses/leg2010.htm>



CPUC Contact Information

Jaclyn Marks

Feed-in Tariff Staff Lead, Energy Division

California Public Utilities Commission

505 Van Ness Avenue, 4th floor

San Francisco, CA 94102

Phone (415) 703-2257

Fax (415) 703-2200

email: jm3@cpuc.ca.gov

www.cpuc.ca.gov