

FEED-IN TARIFF RENEWABLE ENERGY MEETINGS SUMMARY PACKET

Policy Decisions

- Should a renewable energy feed-in tariff program that is focused 500kW systems or less be established in Maine?
- Should there be any parameters on the program such as a maximum price for the power generated or a statewide capacity cap on the program?
- Should there be a distinction between the types of projects that are eligible under this program and the types of generation that are eligible under net energy billing?

Information Presented

Does Maine have a feed-in tariff program?

Yes, the community-based renewable energy program is a type of feed-in tariff program.

What are some of the biggest differences between the proposed feed-in tariff program and the community-based renewable energy program?

The proposed program is limited to generation that is 500kW or less the existing program has a 10MW cap per generation facility. The proposed program will establish a standard contract for different types of technologies; in the existing program the contract is established on a case-by-case basis. The proposed program does not have a statewide cap for participation; the existing program has a statewide cap of 50MW. The proposed program does not have a price cap for the energy produced, the existing program has a cap of 10 cents per kilowatt hour. The existing program offers a 1.5 REC multiplier as an incentive rather than a long-term contract; the proposed program does not offer the 1.5 REC multiplier incentive.

What is the participation in the current feed-in tariff program (the community-based renewable energy program)?

That program is limited to projects that are 10MW or less with a 50MW cap statewide. The program is fully subscribed. There are 12 certified projects ranging in size from 26kW to 10MW. Please see page 3 for a list of these projects.

How might the participation be different under the proposed program?

Projects greater than 500kW would not qualify. There could be greater participation by the solar industry (Three of the twelve certified projects are solar under the current program and they are all under 50kW). The proposal for setting the price of the electricity by revenue requirements with no cap (or a 26kWh cap proposed by the sponsor as an amendment) may make the program more appealing for solar technology.

How do Maine's existing feed-in tariff program and the proposed feed-in tariff program compare to other State's?

There are six other states in the country that have a feed-in tariff program. Maine's current program allows for the largest-sized projects with its 10MW cap per generation project. The next largest cap is 5MW. Conversely, under the current program, Maine has the lowest price cap at 10 cents per kWh. The next lowest price cap is Washington at 12 cents. In contrast to the existing program, if the proposed program is implemented, Maine will have the second lowest cap (Washington State has a 75kW cap and Oregon has a 50kW cap, the next lowest cap is Vermont

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at 2.2 MW). Please see page 4 for a summary table of other state programs and page 5 for a detailed table of the other state programs.

Are there other states that have NEB and feed-in tariff programs (FIT)?

Yes, there are 6 states that have both a NEB and FIT program. Vermont is the only state in the northeast that has both types of programs.

Is there a distinction between the types of generation that are eligible for NEB and FIT in those six states?

In all states the MW capacity limit is greater for the FIT program than for the NEB program, except in one case where there is a higher cap specifically for commercial-sized NEB. Vermont explicitly states that a facility may not participate in both programs. Most states have a total NEB program cap that is related to peak load and a total FIT program cap this is specified by a MW total. Please see the tables on page 7 for a summary comparison of NEB and FIT programs and page 8 for a more detailed comparison.

Other documents included in this packet

Committee discussion document from November 14, 2013
LD1085 Summary and Analysis

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PROJECTS LIST PLACE HOLDER

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SUMMARY TABLE OF STATE FEED-IN TARIFF PROGRAMS

	Feed-in tariff Capacity Cap	Feed-in tariff Program Cap	Price
Maine – current CBRE	10 MW	50 MW	Capped at 10 cents/kWh
Rhode Island	5MW	40 MW	14 – 30 cents/kWh
Hawaii	5 MW	10MW or 60 MW	12 – 27 cents/kWh
California	3 MW	750 MW	Market-based tariff rate
Vermont	2.2 MW	127.5 MW	9-26 cents/kWh
Oregon	500 kW	25 MW	18-40 cents/kWh, larger projects bid
Maine - proposed	500kW	No cap	Based on revenue requirements – sponsor suggested 26 cent cap
Washington	75kW	See price cap	12 cents - \$1.08/kWh, not more than \$5,000.

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DETAIL TABLE STATE FEED-IN TARIFF PROGRAMS

	Eligible Technologies	Project Size Caps	Program Caps/Targets	Contract Duration	Price
California Feed-In Tariff Public Utilities Code §399.20 Public Resources Code §25741	Solar thermal, PV, wind, geothermal, fuel cells using renewable fuels, small hydroelectric (≤ 30 MW), biomass, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, tidal current	Up to 3 MW	750 MW Additional 250 MW from bioenergy (biogas and biomass) projects that begin after 6/1/2013	10, 15 or 20 years	Market-based tariff rate
Hawaii Feed-In Tariff http://www.heco.com	Solar thermal electric, PV, landfill gas, wind, biomass, hydroelectric, geothermal electric, municipal solid waste, tidal energy, wave energy, ocean thermal	Up to 5 MW, though cap varies by technology and island	Oahu – 60 MW Big Island – 10 MW Maui, Lanai, and Molokai (combined) – 10 MW	20 years	\$0.12/kWh to \$0.269/kWh, depending on project technology and size
Oregon Solar Volumetric Incentive and Payments Program (Pilot Program) OR Administrative Rules 860-084	PV	Up to 500 kW	25 MW New applications will not be accepted after March 31, 2015, or 25 MW cap is reached, whichever is earlier	15 years	Larger projects (>100 kW) must set rates according to a competitive bidding process Smaller projects - \$0.18/kWh to \$0.39/kWh, depending on project location and size
Rhode Island Distributed Generation Standard Contracts	Solar thermal electric, PV, wind, geothermal, fuel cells using renewable resources, biogas as a result of anaerobic digestion, small	Up to 5 MW	40 MW Program expires at the end of 2014	15 years	\$0.1480/kWh to \$0.2995/kWh, depending on project technology and size

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	Eligible Technologies	Project Size Caps	Program Caps/Targets	Contract Duration	Price
RI General Laws Ch. 39-26.1-3 (H5803 – 2013) and 39-26-5	hydroelectric, tidal energy, wave energy, ocean thermal				
Vermont Standard Offer for Qualifying SPEED Resources 30 V.S.A. §8005a	PV, landfill gas, wind, biomass, hydroelectric, municipal solid waste, anaerobic digestion, small hydroelectric Note: Net metered facilities are not eligible	Up to 2.2 MW	127.5 MW	Solar – 10-25 years Other technologies – 10-20 years	Rates determined by a market-based bidding mechanism subject to an avoided-cost cap Avoided-cost cap ranges from \$0.090/kWh to \$0.257/kWh depending on project technology and size
Washington Renewable Energy Cost Recovery Incentive Payment Program RCW 82.16.110 WAC 458-20-273	Solar thermal, PV, wind, anaerobic digestion	Up to 75 kW	Not specified	Not specified	\$0.12/kWh to \$0.54/kWh, depending on technology type and in-state manufacturing designation \$0.30/kWh to \$1.08/kWh (community solar projects), depending on in-state manufacturing designation Single customers may not receive more than \$5,000 per year

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Sorted by feed-in tariff capacity cap

	Feed-in tariff Capacity Cap	Net metering Capacity Cap	Feed-in tariff Program Cap	Net-metering Program Cap
Maine – current CBRE	10 MW	660kW (100kW for COUs)	50 MW	1-2% peak load review
Rhode Island	5MW	5 MW (only to meet onsite needs)	40 MW	3% peak load
Hawaii	5 MW	100kW (50 kW for 1 utility)	10 MW or 60 MW	15% per circuit distribution threshold
California	3 MW	1 MW (except gov't @ 5MW)	750 MW	5% peak load
Vermont	2.2 MW	500kW (except 2MW military)	127.5 MW	4% peak load
Oregon	500 k	25kW (res) 2	25 MW	No cap (except for co-ops)
Maine - proposed	500kW	1 MW or 2 MW	No cap	1-2% peak load review
Washington	75kW	100kW	No cap	.25% of peak load

Sorted by NEB program capacity cap

	Feed-in tariff Capacity Cap	Net metering Capacity Cap	Feed-in tariff Program Cap	Net-metering Program Cap
Rhode Island	5 MW	5 MW (only to meet onsite needs)	40 MW	3% peak load
Maine - proposed	500kW	1 MW or 2 MW	No cap	1-2% peak load review
California	3 MW	1 MW (except gov't @ 5MW)	750 MW	5% peak load
Maine – current CBRE	10 MW	660kW (100kW for COUs)	50 MW	1-2% peak load review
Vermont	2.2 MW	500kW (except 2MW military)	127.5 MW	4% peak load
Hawaii	5 MW	100kW (50 kW for 1 utility)	10MW or 60 MW	15% per circuit distribution threshold
Washington	75kW	100kW	No cap	.25% of peak load
Oregon	500 kW	25kW (res) 2 MW (comm)	25 MW	No cap (except for co-ops)

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DETAILED NEB AND FIT TABLE COMPARISON

	Feed-In Tariff		Net Metering	
	Project Size Caps	Program Caps/Targets	Project Size Caps	Aggregate Capacity Limit
California (Updated 10/9/2013)	Up to 3 MW	750 MW Additional 250 MW from bioenergy (biogas and biomass) projects that begin after 6/1/2013	1 MW 5 MW for systems operating under the bill credit transfer program (Public Utilities Code 2830); must be owned/ operated by or on property under the control of a local government or university	5% of aggregate customer peak demand Statewide limit of 500 MW for fuel cells
Hawaii (Updated 8/06/2012)	Up to 5 MW, though cap varies by technology and island	Oahu – 60 MW Big Island – 10 MW Maui, Lanai and Molokai (combined) – 10 MW	100 kW for HECO, MECO and HELCO customers 50 kW for KIUC customers	15% per circuit distribution threshold for distributed generation penetration
Oregon (Updated 5/14/2013)	Up to 500 kW	25 MW New applications will not be accepted after March 31, 2015, or 25 MW cap is reached, whichever is earlier	2 MW for non-residential PGE and PacifiCorp customers 25 kW for residential PGE and PacifiCorp customers 25 kW for municipal utility, co-op and people’s utility district customers	No limit specified for PGE and PacifiCorp 0.5% of utility’s historic single-hour peak load for municipal utilities, co-ops and people’s utility district customers
Rhode Island (Updated 7/26/2012)	Up to 5 MW	40 MW Program expires at the end of 2014	5 MW (systems must be “reasonably designed” to generate only up to 100% of annual electricity consumption)	3% of peak load 2 MW reserved for systems under 50 kW