



Available Paths for Designing Strong State Feed-in Tariffs¹

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This paper is intended to provide sample language that could be used by states to implement a feed-in tariff (FIT) that should not be preempted by federal law.³ This language only addresses how the rates would be set. It does not address all of the other important elements of a FIT law that are well-documented in other sources.⁴

This document is not intended as legal advice. Anyone working to promote a FIT law in their state should work with a local lawyer who will know best how to craft a law that works well with other existing laws in that state. Existing law in any particular state will impact how each of these paths needs to be crafted in order to work in that state. Many of the terms in these sample laws should be replaced by the specific terms of art used in a specific state's laws governing the electricity industry.

This document is intended to accompany *Adopting State Feed-in Tariff Laws without Federal Preemption*, a paper that describes many of the issues and terms relevant to understanding these suggested paths.

Finally, this document is intended to be read through as a whole, even if you are only interested a particular path outlined later in the document. Many notes and comments included in the first path (Path A) apply to later paths.

¹ This document is a work in process and comments, suggestions, and criticisms are welcome to ensure that renewable energy advocates have the best information in their hands. Comments should be sent to jen [at] elaw.org. The latest version of this paper can be found on the websites of the Environmental Law Alliance Worldwide at: <http://www.elaw.org/node/5742>, or the Alliance for Renewable Energy at: <http://www.allianceforrenewableenergy.org>.

² The paper is written by Jennifer Gleason, Staff Attorney for the Environmental Law Alliance Worldwide (ELAW) (<http://www.elaw.org/>). This paper was commissioned by the Alliance for Renewable Energy (ARE) (<http://www.allianceforrenewableenergy.org/>) with funds from the 11th Hour Project. ELAW and Jennifer Gleason are responsible for the content of the paper.

³ This is not intended to represent the only paths for designing a FIT that is not preempted.

⁴ See for example resources available on the websites of the Alliance for Renewable Energy (ARE) (<http://www.allianceforrenewableenergy.org/>) the World Future Council (<http://www.futurepolicy.org/renewableenergy.html>), Wind Works (http://www.wind-works.org/articles/feed_laws.html), and the Clean Coalition (<http://www.clean-coalition.org/>).

A. FIT Implemented under PURPA, Setting Rates at Avoided Cost

A state should be able to implement a FIT under PURPA. The state legislature would first need to require electric utilities procure a specified amount of energy (described as specific amount of energy or a specific percentage of energy) from generators with specific characteristics. The types of generators covered by the law would have to be eligible as qualified facilities under PURPA. The possibilities are limitless, but here are a few examples:

- The law could require each utility to procure 5% of its energy needs from renewable generators with capacity under 20MW; or
- The law could require each utility to procure 100 MW of electricity from wind turbines, 50 MW of electricity from solar photovoltaic systems with 1-5 MW capacity, 25 MW of electricity from solar photovoltaic systems with 1-100kW capacity, etc.

If the state has required electric utilities to procure a certain amount of electricity from generators with specified characteristics (and these generators are eligible to be qualified facilities under PURPA), the public utility commission could design a FIT for the types of generators included in the law under section 210 of PURPA. A state law could require the commission to set differentiated avoided costs, or the commission could do that at its own initiative. The same law could require the purchase of electricity from the various generators and require the commission set differentiated avoided costs for each of covered technologies.

Possible language for a state law requiring the PUC to implement a FIT under PURPA:

The Public Utility Commission shall establish a feed-in tariff program for each electric utility.

[Omitting other provisions of a FIT, not relating to setting rates.]

Renewable Energy Capacity Requirements

On or before [X date], each electric utility⁵ shall procure electricity equivalent to five percent of the electricity sold by the utility to retail electricity customers from wind energy, two percent of the electricity sold by the utility to retail electricity customers from solar photovoltaic systems with installed capacity up to and including 30kW, and two percent of the electricity sold by the utility to retail electricity customers from solar photovoltaic systems with installed capacity up to and including 1 MW.⁶

⁵ Replace with the term of art used in your state, if it is not “electric utility.” Note you need to be clear about whether you intend to cover only the IOUs or include public power utilities as well.

⁶ These provisions could vary widely. Each utility could be given different standards to meet. Standards could be expressed in specific MW or as percentages.

Differentiated Avoided Costs

The Commission shall set the rates that the electric utilities will offer to purchase electricity from small power production facilities⁷ that generate electricity that meets the renewable energy capacity requirements outlined in this Act.⁸ These rates will be paid until the renewable energy capacity requirements have been met.

The rates shall be set under the Commission's authority to adopt avoided costs (also known as incremental costs) under section 210 of PURPA.

The Commission shall adopt multiple avoided cost rates that differentiate among the technologies that meet the renewable energy capacity requirements.⁹ The Commission shall make separate avoided cost calculations for each of the categories of electricity each utility must purchase under the renewable energy capacity requirement.

[Note that generators would need to be qualified facilities.]

B. FIT Implemented Outside PURPA

A state may require electric utilities to purchase electricity from defined sources, even if it cannot set the rates for those purchases. A state could also require a utility to purchase the environmental attributes of the electricity and set the rate for that purchase, by requiring the electric utilities purchase renewable energy certificates (RECs) generated along with the electricity purchased, at a set price, unless a state law prohibits this.¹⁰

Note this path does not set the rate for the electricity. The electricity would be purchased at traditional avoided cost rates if purchased under PURPA or at market rates if purchased outside PURPA. This does not need to be stated in the law.

Possible language for a state law setting the rate for FIT sales by setting the rate for RECs:

⁷ Could also include cogeneration facilities.

⁸ Or cite to another Act if the requirement to purchase electricity generated from specific technologies is specified elsewhere.

⁹ Note if the requirement is simply that 20% of electricity must come from renewable sources without creating specific targets from specified technologies, then FERC may find multiple rates are not just and reasonable. If the state has not required utilities to purchase electricity from specific sources, only mandating purchases from the renewables sector as a whole, it may be that only one differentiated avoided cost could be set (which would likely be calculated as the least-cost renewable technology and may not be enough to cover the costs of more expensive technologies).

¹⁰ It is important to review state law to see how other laws address renewable energy certificates. Do they require the certificates to transfer to the utility for no additional cost in a transaction under PURPA? Do they state that electricity generated by qualified facilities selling electricity under PURPA do not generate certificates?

The Public Utility Commission shall establish a feed-in tariff program for each electric utility.

[Omitting other provisions of a FIT, not relating to setting rates.]

Renewable Energy Capacity Requirements

On or before [X date], each electric utility shall procure electricity equivalent to 5 percent of the electricity sold by the utility to retail electricity customers from wind energy, 2 percent of the electricity sold by the utility to retail electricity customers from solar photovoltaic systems with installed capacity up to and including 30kW, and 2 percent of the electricity sold by the utility to retail electricity customers from solar photovoltaic systems with installed capacity up to and including 1 MW.¹¹ This electricity must be purchased from entities other than the utility itself.

Renewable Energy Certificates

In addition to the purchase of the electricity required under the renewable energy capacity requirements defined under this Act, each electric utility shall offer to purchase the renewable energy certificate generated with the electricity. The electric utilities will pay the following for the certificates until the renewable energy capacity has been met:

- \$X for each renewable energy certificate that accompanies electricity generated from wind;
- \$Y for each renewable energy certificate that accompanies electricity generated from solar photovoltaic systems with installed capacity up to and including 30kW; and
- \$Z for each renewable energy certificate that accompanies electricity generated from solar photovoltaic systems with installed capacity up to and including 1 MW.

C. FIT Implemented under a Hybrid PURPA/REC Program

A state can implement a FIT under PURPA and require separate payment for RECs generated along with the purchased electricity.

This can be accomplished two ways. The state could proceed without requiring utilities to procure specific amounts of electricity from particular sources or it can require this procurement (as above under the more straightforward implementation under PURPA).

Possible language for a state law implementing a FIT under the first scenario:

¹¹ These provisions could vary widely. Each utility could be given different standards to meet. Standards could be expressed in specific MW or as percentages.

[Omitting other provisions of a FIT, not relating to setting rates.]

Renewable Energy Certificates

Along with the purchase of electricity from qualified facilities at the utility's avoided cost as required under PURPA, each electric utility must purchase the associated renewable energy certificate. The electric utility will pay:

- \$X for each renewable energy certificate that accompanies electricity generated from wind;
- \$Y for each renewable energy certificate that accompanies electricity generated from solar photovoltaic systems with installed capacity up to and including 30kW; and
- \$Z for each renewable energy certificate that accompanies electricity generated from solar photovoltaic systems with installed capacity up to and including 1 MW.

[Under this scenario avoided cost would be the traditional calculation of avoided cost that would be set for any available electricity that the utility could purchase. A cap could be set by simply stating that these prices for RECs apply until a utility has X MW of electricity from each of the sources the state wants to include.]

[Note that generators would need to be qualified facilities.]

Possible language for a state law implementing a FIT under the second scenario:

The Public Utility Commission shall establish a feed-in tariff program for each electric utility.

[Omitting other provisions of a FIT, not relating to setting rates.]

Renewable Energy Capacity Requirements

On or before [X date], each electric utility shall procure electricity equivalent to five percent of the electricity sold by the utility to retail electricity customers from wind energy, two percent of the electricity sold by the utility to retail electricity customers from solar photovoltaic systems with installed capacity up to and including 30kW, and two percent of the electricity sold by the utility to retail electricity customers from solar photovoltaic systems with installed capacity up to and including 1 MW.¹²

Differentiated Avoided Costs

¹² These provisions could vary widely. Each utility could be given different standards to meet. Standards could be expressed in specific MW or as percentages.

The Commission shall set the rates that the electric utilities will offer to purchase electricity from small power production facilities¹³ that generate electricity that meets the renewable energy capacity requirements outlined in this Act.¹⁴

The rates shall be set under the Commission's authority to adopt avoided costs (also known as incremental costs) under section 210 of PURPA.

The Commission shall adopt multiple avoided cost rates that differentiate among the technologies that meet the renewable energy capacity requirements.¹⁵ The Commission shall make separate avoided cost calculations for each of the categories of electricity each utility must purchase under the renewable energy capacity requirement.

Renewable Energy Certificates

In addition to the purchase of the electricity at avoided cost, each electric utility shall offer to purchase the renewable energy certificate generated with the electricity. The electric utilities will pay the following for the certificates until the renewable energy capacity has been met:

- \$X for each renewable energy certificate that accompanies electricity generated from wind;
- \$Y for each renewable energy certificate that accompanies electricity generated from solar photovoltaic systems with installed capacity up to and including 30kW; and
- \$Z for each renewable energy certificate that accompanies electricity generated from solar photovoltaic systems with installed capacity up to and including 1 MW.

[This scenario allows for the price of the REC to reflect environmental and social attributes of the generation and be used in combination with differentiated avoided costs to set a good price for a FIT.]

D. Municipal FIT

A municipal utility can voluntarily adopt a FIT, but a utility can end a voluntary program whenever it wants (while honoring existing contracts). If a state wants to guarantee the municipal utility will continue to implement a FIT program, it should follow one of the above paths to implement a mandatory FIT for the municipal utility.¹⁶

¹³ Could also include cogeneration facilities.

¹⁴ Or cite to another Act if the requirement to purchase electricity generated from specific technologies is specified elsewhere.

¹⁵ See note 5 above.

¹⁶ This section reflects an important revision to these papers made on August 10, 2011. Please see corresponding changes to the accompanying paper, *Adopting State Feed-in Tariff Laws without Federal Preemption*.

E. State Agency Buyer and Seller

A state could create an agency to buy and sell electricity. If a state has created such an agency (let's call it the Power Authority) it could create a FIT by requiring electric utilities purchase available electricity from the Power Authority at set rates. The Power Authority would then voluntarily enter into contracts to purchase electricity at a rate offered by the Power Authority voluntarily (this rate should not be set by statute).

Possible language for a state law implementing a FIT under this scenario, assuming a state agency (the Power Authority) has the authority outlined above:

[Omitting other provisions of a FIT, not relating to setting rates. This also omits language creating the Power Authority and giving it authority to purchase electricity from eligible sources.]

Each electric utility shall purchase a pro rata portion of the electricity available from the Power Authority at \$X per kWh.

OR

Each electric utility shall purchase a pro rata portion of the electricity available from the Power Authority at the following rates:

- a. \$A per kWh for electricity that originates from solar photovoltaic systems with installed capacity up to and including 30kW;
- b. \$B per kWh for electricity that originates from solar photovoltaic systems with installed capacity up to and including 1 MW; and
- c. \$C per kWh for electricity that originates from wind facilities.

F. Renewable Energy Standard Offer

The American Council On Renewable Energy (ACORE) is working with the Federal Energy Regulatory Commission to define another path forward that would include FERC approving rates submitted to it by state public utility commissions. This section will be updated when details about this strategy are available. If you would like more information, please contact (Ms) Jeramy Shays (shays [at] acore.org).