



NIPSCO

Feed-in Tariff

Policy Description

A feed-in tariff (FIT) is an incentive that pays owners of distributed energy resources, such as combined heat and power (CHP) systems, a fixed amount per kilowatt-hour of energy sold back to the grid. Northern Indiana Public Service Company LLC's (NIPSCO's) FIT Phase I kicked off in July 2011. It was designed to help encourage development of renewable energy—in particular biomass, wind, new hydro and solar resources—in the utility's service territory in northern Indiana. NIPSCO's FIT is an alternative to its net metering program, which allows customers to offset their own energy use by generating renewable energy. Through the tariff, customers have a sell-back opportunity at a predetermined price for up to 15 years through a standard power purchase agreement. Customers using biomass-fueled CHP systems are eligible for the incentive. The FIT also provides the utility with a mechanism to offer differing rates based on market interest and market evolution. NIPSCO used the success of Phase I to build and launch FIT Phase II in the first quarter of 2015. Phase II redefined the tiers of each technology based on lessons learned through the first phase.

Policy Development

On July 12, 2011, the Indiana Utility Regulatory Commission (IURC) approved NIPSCO's FIT Phase I in Case No. 43922. Phase I concluded in March of 2015 with a total subscription of 29.7 MW. On March 4, 2015, the IURC approved a proposed Phase II, which provided for an additional 16 MW of renewable capacity with a focus on smaller projects. On April 3, 2015, NIPSCO published the Phase II Participation Request Form (PRF) on the NIPSCO website and collected them from interested customers until June 4, 2015. Over 89 PRFs were submitted over the course of 60 days. NIPSCO used a discounted cash flow (DCF) model to derive its FIT pricing, considering estimated energy outputs for representative project(s) for each technology, capital cost of installation, operations and maintenance costs, discount rate, federal investment tax credit, tax effect of accelerated depreciation, and inflation. The proposed rates were comparable to those offered by Indianapolis Power & Light Company, the only other Indiana utility with a similar tariff.

Settlement Allows FIT Continuation

The March 4, 2015, IURC Order approved a stipulation and settlement agreement for a proposed Phase II of the FIT program. The signatories were NIPSCO, the Indiana Office of Utility Consumer Counselor, Citizens Action Coalition of Indiana, Inc., the Hoosier Chapter of the Sierra Club, Indiana Distributed Generation Alliance, Inc., and Bio Town Ag, Inc. The settlement agreement allowed for, among other things, continuation of NIPSCO's FIT and modification of the company's interconnection standards to expand eligibility.

Technology	Capacity Final (kW)
Biomass	14,348
Large Solar	14,500
Small Solar	690
Large Wind	150
Small Wind	10.2
Total	29,698.2

NIPSCO FIT Phase I In-Service

Summary of Policy Results and Outcomes

During Phase I, 108 customers became program participants: 84 residential and small commercial customers utilized the small solar and wind segments of 5 to 10 kW, and 24 customers participated in the large solar, large wind, and biomass categories. NIPSCO began purchasing energy from customers contracted under the fit in 2011 and added purchases as more generators and technologies interconnected to the grid.

As of 2020, seven biomass-fueled CHP projects, ranging from 1 MW to 6.3 MW, participate in the FIT. Three of these projects are biodigester-fueled combustion

turbines, two are biodigester-fueled reciprocating engines, one is a landfill-gas-fueled combustion turbine, and one is a landfill-gas-fueled reciprocating engine. While biomass projects represent a small number of FIT participants, they represent a large portion of the electricity generated.

Success Story: Bio Town Ag in Reynolds, Indiana, is one of the biomass CHP projects enrolled in the FIT. In the Bio Town Ag system, commodity beef and pork production generates manure for the digester, where the decomposition of the manure and other organic byproducts produces methane gas. Six 1.059 MW Jenbacher engine/generators (gensets) operate using biogas from the digester to produce electricity.



Lessons to Share

Bio Town Ag, multigenerational farm in Indiana, prides itself on having an environmentally and financially sustainable agricultural model.

Source: DVO Inc.

Based on lessons learned from the success of FIT Phase I, NIPSCO was able to make several adjustments to the program in Phase II. For example, NIPSCO revised purchase rates and refined tiers of each technology for Phase II. As a result, solar purchase rates came down a bit, while purchase rates for wind and biomass remained relatively steady. NIPSCO also determined that Phase II biomass projects would continue to receive a capacity payment (per kW) at the cogeneration tariff capacity rate, which fluctuates annually, in addition to FIT payments for energy produced (per kWh). Additional lessons learned from NIPSCO's experience include the following:

- The FIT allowed NIPSCO the opportunity to develop improved standards for the interconnection of small and large distributed generation.
- While "micro" projects were expected to be a key component of Phase II, participation at that level has been small, both in terms of number of customers and actual production.
- Offering a lottery during the second phase of the program allowed NIPSCO to handle initial interest fairly and objectively, which the stakeholders appreciated.
- Incorporating customers' ability to lease equipment in Phase II increased flexibility for customer participation.
- Working with stakeholders was critical to meeting the objectives of both NIPSCO and FIT participants.

Going forward, NIPSCO plans to track FIT generation, monitor capacity availability, and assist customers throughout the interconnection process.¹ NIPSCO continues to learn from FIT customers about their operational relationships with the utility, and NIPSCO is using lessons learned to adapt its operating procedures and safety protocols for line employees to ensure the safe and reliable operation of the grid for all customers.

For More Information

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¹ NIPSCO Feed-in Tariff Annual Report. July 11, 2019. https://iurc.portal.in.gov/entity/sharepointdocumentlocation/cc3439f5-05a4-e911-a980-001dd800a749/bb9c6bba-fd52-45ad-8e64-a444aef13c39?file=44393_NIPSCO_Compliance%20Filing%20-%20Annual%20Report_07112019.pdf