

The Florida Senate
BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Regulated Industries

BILL: SB 1024

INTRODUCER: Senator Bradley

SUBJECT: Net Metering

DATE: January 10, 2022

REVISED: _____

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Sharon	Imhof	RI	Pre-meeting
2.			CA	
3.			RC	

I. Summary:

SB 1024 amends s. 366.91, F.S., relating to renewable energy, requiring the Public Service Commission (PSC) to revise its rules on net metering of customer renewable generation.

Under the bill, the PSC must propose a revised net metering rule by January 1, 2023, meeting the following criteria:

- Rate structures and billing must ensure that customers owning or leasing renewable generation systems pay the full cost of electric service and are not subsidized by the general body of ratepayers;
- All energy delivered by the public utility must be purchased at the applicable retail rate;
- All energy delivered by a customer generation system to the public utility must be credited to the customer at the public utility's full avoided cost; and
- Net metering billing may include fixed charges, base facilities charges, electric grid access fees, or monthly minimum bills, to ensure that the public utility recovers the fixed costs of serving those customers and that the general body of ratepayers does not subsidize customer renewable generation systems.

The bill allows customers who own or lease renewable generation systems before January 1, 2023, to continue under the existing net metering rate design and rates for ten years. This provision also applies to customers who purchase or lease real property with renewable generation systems installed for all or part of the ten-year period.

Under the bill, the PSC must require a public utility requesting a change in base rates to report the net metering impact on the public utility's revenue and cost of service.

The bill is effective July 1, 2022.

II. Present Situation:

Florida Public Service Commission

The Florida Public Service Commission (PSC) is an arm of the legislative branch of government.¹ The role of the PSC is to ensure that Florida's consumers receive utility services, including electric, natural gas, telephone, water, and wastewater, in a safe, reasonable, and reliable manner.² In order to do so, the PSC exercises authority over public utilities in one or more of the following areas: (1) Rate or economic regulation; (2) Market competition oversight; and/or (3) Monitoring of safety, reliability, and service issues.³

Public Utilities

A public utility includes any person or legal entity supplying electricity or gas, including natural, manufactured, or similar gaseous substance, to or for the public within the state.⁴ The term does not include municipal electric utilities and rural electric cooperatives.⁵ Therefore, the PSC does not regulate the rates of publicly owned municipal or cooperative electric utilities.⁶

There are five investor-owned electric utility companies (IOU) in Florida: Florida Power & Light Company (FPL), Duke Energy Florida (Duke), Tampa Electric Company (TECO), Gulf Power Company (Gulf), and Florida Public Utilities Corporation.⁷ IOU rates and revenues are regulated by the PSC.⁸ These utilities must file periodic earnings reports, which allow the PSC to monitor earnings levels on an ongoing basis and adjust customer rates quickly if a company appears to be overearning.⁹

Section 366.041(2), F.S., requires public utilities to provide adequate service to customers. To fulfill that obligation, public utilities monitor customer usage patterns in order to plan for future energy needs. Utilities use billing data to predict and make investments in their infrastructure.¹⁰ Section 366.06, F.S., requires the PSC to allow the IOUs to recover honestly and prudently invested costs of providing service, including investments in infrastructure and operating expenses used to provide electric service.¹¹

Renewable Energy

Section 377.803, F.S., defines "renewable energy" to mean "electrical, mechanical, or thermal energy produced from a method that uses one or more of the following fuels or energy sources:

¹ Section 350.001, F.S.

² See Florida Public Service Commission, *The PSC's Role*, <http://www.psc.state.fl.us> (last visited Jan. 9, 2022).

³ *Id.*

⁴ Section 366.02(1), F.S.

⁵ *Id.*

⁶ See PSC, *Florida PSC 2020 Annual Report*, p. 13, available at <http://www.psc.state.fl.us/Files/PDF/Publications/Reports/General/Annualreports/2020.pdf> (last visited Jan. 9, 2022).

⁷ *Id.* FPL acquired Gulf in 2019 and merged as of January 3, 2022.

⁸ Florida Department of Agriculture and Consumer Services, *Electric Utilities*, <https://www.fdacs.gov/Energy/Florida-Energy-Clearinghouse/Electric-Utilities> (last visited Jan. 10, 2022).

⁹ PSC, *2020 Annual Report*, *supra* at n. 6, p. 6.

¹⁰ PSC, *Bill Analysis for SB 1024* (Dec. 20, 2021) p. 2 (on file with the Senate Committee on Regulated Industries).

¹¹ *Id.*

hydrogen, biomass, as defined in s. 366.91, F.S., solar energy, geothermal energy, wind energy, ocean energy, waste heat, or hydroelectric power.”

Section 366.91, F.S.,¹² requires utilities whose annual sales are greater than 2,000 gigawatt hours, to continuously offer a purchase contract to renewable energy producers, containing payment provisions for energy and capacity,¹³ based on the utility’s full avoided costs,¹⁴ for a minimum of ten years.¹⁵

Public Utility Regulatory Policies Act (PURPA)

In 1978, the federal government enacted the Public Utility Regulatory Policies Act (PURPA),¹⁶ which required promotion of energy efficiency and use of renewables. The act required utilities to purchase power from “qualifying facilities,”¹⁷ which fall into two categories: qualifying small power production facilities and qualifying cogeneration facilities.¹⁸ The PURPA directed the Federal Energy Regulatory Commission to implement the provisions, which in turn, directed the states to implement the provisions. In response, the Florida Legislature created s. 366.051, F.S.,¹⁹ directing the utilities to purchase power from the cogenerators or small power producers.

Full Avoided Costs

A utility’s full avoided cost is the incremental costs of electric energy or capacity, which, but for the purchase from cogenerators or small power producers, the utility would have to generate itself or purchase from another source.²⁰ Traditionally, the PSC has approved electric utilities power purchase contracts that include provisions for payment, capacity, and energy based upon either the utility’s cost to construct and operate its next planned generating unit or the cost of purchasing capacity and energy from generating units owned by other utilities in the interchange market.²¹

The utility’s full avoided costs and the utility’s as-available tariff rate are not the same. Full avoided costs can include capacity and energy avoided costs, while the as-available rate only includes avoided energy costs, which is largely fuel.²²

¹² Originally enacted by Chapter 2005-259, s. 1, Laws of Fla.

¹³ Capacity is the maximum electric output, in megawatts, that an electricity generator can produce under ideal conditions. See U.S. Energy Information Administration, *What is the difference between electricity generation capacity and electricity generation?* <https://www.eia.gov/tools/faqs/faq.php?id=101&t=3> (last visited Jan. 9, 2022).

¹⁴ See “Full avoided Costs,” on p. 3.

¹⁵ Section 366.91, F.S.

¹⁶ 16 U.S.C. s. 2601 et seq.

¹⁷ Federal Energy Regulatory Commission, *PURPA Qualifying Facilities*, <https://www.ferc.gov/qf> (last visited Jan. 9, 2022).

¹⁸ *Id.*

¹⁹ Chapter 89-292, s. 4, Laws of Fla.

²⁰ Section 366.051, F.S.

²¹ Florida Public Service Commission, *States’ Electric Restructuring Activities Update: Wholesale Sales* <http://www.psc.state.fl.us/Publications/ElectricRestructuringDetails#4> (last visited Jan. 9, 2022).

²² PSC, *SB 1024 Analysis*, *supra* at n. 10, p. 2.

Customer-Owned Renewable Energy Generation Systems

Customer-owned renewable energy generation systems, primarily solar systems in Florida,²³ allow customers to generate their own electricity.²⁴ It is defined as an electric generating system located on a customer's premises that is primarily intended to offset part or all of the customer's electricity requirements with renewable energy.²⁵

Interconnection²⁶ with the electric grid allows customers to reliably power their homes even when the sun is not shining.²⁷ When a customer-owned system generates more electricity than needed, the electricity flows onto the electric grid for distribution to another customer and the generating customer receives a credit toward future usage from the utility.²⁸ Utilities are federally required to purchase excess power from small renewable energy generators.²⁹

Utility customers primarily benefit from interconnected renewable generation systems through personal use and reducing the amount of electricity they purchase from the utility.³⁰ In turn, this effectively lowers the demand for electricity that the utility must meet for these customers.³¹

Net Metering

Net metering is a metering and billing methodology whereby customer-owned renewable generation is allowed to offset the customer's electricity consumption on site.³² Under net metering, customers are credited for excess energy produced which flows back to the grid. A meter is used to record both electricity drawn from the grid and excess electricity that flows to the grid from the customer-owned system.³³

Florida's net metering rule was established in 2008 requiring IOUs to offer a standardized interconnection agreement for expedited interconnection and net metering of customer-owned renewable generation up to two megawatts.³⁴ The rule's purpose is to:

Promote the development of small customer-owned renewable generation, particularly solar and wind energy systems; diversify the types of fuel used to generate electricity in Florida; lessen Florida's dependence on fossil fuels

²³ PSC, *Interconnection and Net Metering of Customer-Owned Renewable Generation 2020*, available at <http://www.floridapsc.com/Files/PDF/Utilities/Electricgas/CustomerRenewable/2020/2020%20Net%20Metering%20Summary%20Spreadsheet/2020%20Net%20Metering%20Report.pdf#search=Interconnection%20and%20Net%20Metering%20of%20Customer-Owned%20Renewable%20Generation> (last visited Jan. 9, 2022).

²⁴ U.S. Department of Energy, *Grid-Connected Renewable Energy Systems*, <https://www.energy.gov/energysaver/grid-connected-renewable-energy-systems> (last visited Jan. 9, 2022).

²⁵ Section 366.91, F.S.

²⁶ "Interconnection is defined as the technical procedures and legal requirements surrounding energy customers' ability to connect their small-scale renewable energy projects to the electricity grid. U.S. Department of Energy, *Renewable Energy: Distributed Generation Policies and Programs*, <https://www.energy.gov/eere/slsc/renewable-energy-distributed-generation-policies-and-programs> (last visited Jan. 9, 2022).

²⁷ USDE, *Grid-Connected Renewable Energy Systems*, *supra* at n. 24.

²⁸ *Id.*

²⁹ *Id.*

³⁰ PSC, *SB 1024 Analysis*, *supra* at n. 10, p. 1.

³¹ *Id.*

³² Section 366.91, F.S.

³³ USDE, *Grid-Connected Renewable Energy Systems*, *supra* at n. 24.

³⁴ Fla. Admin. Code R. 25-6.065(3).

for the production of electricity; minimize the volatility of fuel costs; encourage investment in the state; improve environmental conditions; and, at the same time, minimize costs of power supply to investor-owned utilities and their customers.³⁵

Under the rule, customers are categorized into tiers, with varying requirements, based on system capacity:³⁶

- Tier 1 Systems, have a capacity of 10 kilowatts or less; there is no application fee, no interconnection study requirement, no insurance requirement, and no manual disconnect switch requirement.
- Tier 2 Systems, have a capacity greater than 10 kilowatts and less than 100 kilowatts; there is an application fee if approved by the PSC, no interconnection study requirement, a \$1 million insurance requirement, and a manual disconnect switch requirement.
- Tier 3 Systems, are greater than 100 kilowatts and less than 2 megawatts; there is an application fee if approved by the PSC, an interconnection study may be required, a \$2 million insurance requirement, and a manual disconnect switch requirement.

All electric utilities, as defined in s. 366.02(2), F.S., must annually report the total:

- Number of customer-owned renewable generation interconnections;
- Kilowatt capacity of the interconnections;
- Kilowatt hours received by interconnected customers from the utility;
- Kilowatt hours received by the utility from the interconnected customers;
- Energy payments made to interconnected customers energy generation delivered to the utility for the previous calendar year; and
- Energy payments made since the implementation of the net metering rule.³⁷

In 2008, there were 577 customer-owned renewable generation interconnections.³⁸ As of December 31, 2020, Florida electric utilities reported a total of 90,552 interconnections, of which 90,518 were solar; and 71,567 interconnections were for IOU customers, of which 71,541 were solar.³⁹ Less than one percent of Florida's electric customers have installed renewable generation equipment as of the 2020 Report.⁴⁰ In comparison, there were 10,504,960 electric utility customers in Florida, as of January 1, 2021.⁴¹

Net Metering Billing

When net metering customers generate excess energy that is delivered to the IOU's grid, they receive an excess energy credit toward their energy consumption for the next month's billing cycle.⁴² The value of the excess energy is equivalent to the utility's retail rate that includes the

³⁵ Fla. Admin. Code R. 25-6.065(1).

³⁶ Fla. Admin. Code R. 25-6.065(4).

³⁷ Fla. Admin. Code R. 25-6.065(10).

³⁸ PSC, *SB 1024 Analysis*, *supra* at n. 10, p. 2.

³⁹ PSC, *2020 Interconnection and Net Metering Report*, *supra* at n. 23.

⁴⁰ PSC, *SB 1024 Analysis*, *supra* at n. 10, p. 3.

⁴¹ PSC, *SB 1024 Analysis*, *supra* at n. 10, p. 3 citing PSC, *Review of 2021 Ten-year Site Plans of Florida's Electric Utilities*, p.13, available at <http://www.psc.state.fl.us/Files/PDF/Utilities/Electricgas/TenYearSitePlans/2021/Review.pdf> (last visited Jan. 9, 2022).

⁴² Fla. Admin. Code R. 25-6.065(8)(e).

cost of generation, transmission, distribution, fuel, operating and maintenance expenses and other costs⁴³. Excess energy credits may be carried over to credit energy usage in subsequent months, but not for more than twelve months.⁴⁴ At the end of each calendar year, the IOU pays the customer for any unused excess energy credits at an average annual rate based on the “IOU’s as-available energy tariff.”⁴⁵ “The utility’s full avoided costs and the utility’s as-available tariff rate are not the same. “Full avoided costs” can include capacity and energy avoided costs, while the “as-available rate” only includes avoided energy costs, which is largely fuel.”⁴⁶

Net metering customers still receive a monthly bill, regardless of their energy usage from the grid.⁴⁷ Net metering customers must pay any applicable customer charge and the applicable demand charge.⁴⁸ This may include a fixed monthly customer charge, a base facility charge, volumetric rates for cents per kilowatt hour based on the customer’s energy consumption, or demand rates based upon the maximum kilowatt demand in a monthly billing cycle.⁴⁹

PSC Workshop on Net Metering

On September 17, 2020, the PSC held an informational workshop on customer-owned renewable generation, for the purpose of evaluating the effect of the current net metering policy. The workshop included presentations by PSC staff,⁵⁰ Vote Solar,⁵¹ Southern Alliance for Clean Energy,⁵² Florida Solar Energy Industries Association,⁵³ and Florida Sunrun.⁵⁴

Net Metering Customer Demographics

The following demographic information has been identified by FPL and Gulf,⁵⁵ respectively, among their net metered customers:

- Average Age: 54 years and 47 years.
- Percentage of Homeowners: 96% and 80%.
- Average Length of time in their Residence: 12 years and 9 years.
- Household Income greater than \$50,000: 67% and 59%.

⁴³ PSC, *SB 1024 Analysis, supra* at n. 10, p. 2.

⁴⁴ Fla. Admin. Code R. 25-6.065(8)(f).

⁴⁵ *Id.* According to the PSC, as-available energy is purchased by the utility at a rate, in cents per kilowatt-hour, not to exceed the utility’s avoided energy cost.

⁴⁶ PSC, *SB 1024 Analysis, supra* at n. 10, p. 2.

⁴⁷ Fla. Admin. Code R. 25-6.065(8)(h).

⁴⁸ *Id.*

⁴⁹ PSC, *SB 1024 Analysis, supra* at n. 10, p. 2.

⁵⁰ Matthew A. Vogel, PSC Office of Industry Development and Market Analysis, *Staff Presentation Workshop on Customer-owned Renewable Generation* (September 17, 2020) available at

<http://www.psc.state.fl.us/Files/PDF/Utilities/RenewableGenerationWorkshop/PSC.pdf> (last visited Jan. 9, 2022).

⁵¹ Vote Solar, *The State of Rooftop Solar in Florida* (September 2020) available at

<http://www.psc.state.fl.us/Files/PDF/Utilities/RenewableGenerationWorkshop/VoteSolar.pdf> (last visited Jan. 9, 2022).

⁵² Bryan Jacob, *Southern Alliance for Clean Energy Comments on Net Metering* (September 17, 2020) available at

<http://www.psc.state.fl.us/Files/PDF/Utilities/RenewableGenerationWorkshop/SACE.pdf> (last visited Jan. 9, 2022).

⁵³ Justin Hoysradt, Florida Solar Energy Industries Association, *Net-Metering Powers Job Growth*, available at

<http://www.psc.state.fl.us/Files/PDF/Utilities/RenewableGenerationWorkshop/FSEIA.pdf> (last visited Jan. 9, 2022).

⁵⁴ Florida Sunrun, *NEM is working for the Sunshine State* (September 2020) available at

<http://www.psc.state.fl.us/Files/PDF/Utilities/RenewableGenerationWorkshop/FloridaSunrun.pdf> (last visited Jan. 9, 2022).

⁵⁵ Now merged.

- Household Income greater than \$100,000: 34% and 22%.⁵⁶

Cross-Subsidization

Concerns of cross-subsidization of net metered customers by non-net metered customers have been raised before the PSC.⁵⁷ Questions relate to the components of the utility's cost of service that are offset by energy generated by net metered customers.⁵⁸ These questions are partly based on net metered customers purchasing less energy from the grid,⁵⁹ because a utility is statutorily entitled to recoup its "honestly and prudently invested costs of providing electric service to its customers," regardless of customer use patterns.⁶⁰

There is disagreement among stakeholders as to the question of cross-subsidization and how to quantify it. Notably, the Solar Energy Industries Association states that "[s]ome level of cross-subsidization is inherent in all rate designs, particularly for large diverse classes of ratepayers and an independent finding of a material cost shift should be required before regulators authorize substantial changes to rates or rate design."⁶¹

According to Vote Solar, Florida's current level of solar adoption results in a negligible impact on customer rates.⁶² Projections for cross subsidization among the general body of ratepayers for four of Florida's IOUs result in estimates of a cumulative cross-subsidy of over \$700 million by 2025.⁶³

III. Effect of Proposed Changes:

The bill amends the legislative findings, under s. 366.91, F.S., relating to renewable energy, to state that:

- The continued development of renewable energy resources in a fair and equitable manner to all public utility customers is in the public interest.
- A net metering rule redesign is supported by the development and maturity of the industry, the decline in solar panel costs, and increased customer-owned/leased renewable generation.
- Customer owned/leased renewable generation is not available to public utility customers lacking financial resources or otherwise residing in multitenant buildings.
- The industry's growth has resulted in increased cross-subsidization of electric service costs onto the general body of ratepayers.
- The redesigned net metering rate structures must ensure that customers who own or lease renewable generation pay the full cost service.

⁵⁶ FPL, *FPL and Gulf Post-Workshop Comments*, p. 6, available at <https://www.floridapsc.com/Files/PDF/Utilities/RenewableGenerationWorkshop/FPLGulfPostWorkshop.pdf> (last visited Jan. 9, 2022).

⁵⁷ PSC, *SB 1024 Analysis*, *supra* at n. 10, p. 4.

⁵⁸ *Id.* "For example, questions have been raised as to whether the excess energy offsets the utility's cost of power plants, given that power plants must be available to meet a renewable energy customer's electric needs when their systems are not operating or when their demand exceeds the capability of their renewable energy system." *Id.*

⁵⁹ *Id.*

⁶⁰ Section 366.06, F.S.; PSC, *SB 1024 Analysis*, *supra* at n. 10, p. 4.

⁶¹ See Solar Energy Industries Association, *Principles for the Evolution of Net Energy Metering and Rate Design*, available at <https://www.seia.org/initiatives/principles-evolution-net-energy-metering-and-rate-design> (last visited Jan. 9, 2022).

⁶² See *Vote Solar Post Workshop Comment*.

⁶³ *FPL and Gulf Post-Workshop Comments*, *supra* at n. 50, p. 7.

The bill requires the PSC to propose a revised net metering rule by January 1, 2023. The revised rule must meet the following criteria:

- Rate structures and billing must ensure that customers owning or leasing renewable generation pay the full cost of electric service and are not subsidized by the general body of ratepayers.
- Ensure that all energy delivered by the public utility is purchased at the applicable retail rate.
- Ensure that all energy delivered by customer generation to the public utility is credited to the customer at the public utility's full avoided cost.
- Net metering may include fixed charges, base facilities charges, electric grid access fees, or monthly minimum bills, to ensure that the public utility recovers the fixed costs of serving those customers and that the general body of ratepayers does not subsidize customer renewable generation.

The bill allows customers who own or lease renewable generation before January 1, 2023, to continue under the existing net metering rate design and rates for ten years from that date. This provision also applies to customers who purchase or lease real property with renewable generation systems installed for all or part of the ten-year period.

Under the bill, the PSC must require a public utility requesting a change in base rates under s. 366.06, F.S., to report the net metering impact on the public utility's revenue and cost of service.

The bill is effective July 1, 2022.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

E. Other Constitutional Issues:

None.

V. Fiscal Impact Statement:**A. Tax/Fee Issues:**

None.

B. Private Sector Impact:

There may be an indeterminate impact on the solar installation and manufacturing industry if fewer customers purchase rooftop solar as a result of the redesigned net metering rate structure.⁶⁴

Decreasing the credit amount from the retail rate to the full avoided cost may impact a customer's decision to install a renewable generation system.⁶⁵ The average full life of renewable energy generating equipment is approximately 20 years.⁶⁶ Customers who have already installed systems under the current net metering rule may find that they will have a lower return on their investment than initially predicted.⁶⁷

Decreasing the credit amount from retail to the full avoided cost may have a positive impact on the IOUs, where projections of the cumulative cross-subsidy to be absorbed by non-net metered customers of FPL, Gulf, TECO, and Duke for 2020 through 2025 total \$719 million.⁶⁸

C. Government Sector Impact:

None.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill substantially amends section 366.91 of the Florida Statutes.

⁶⁴ PSC, *SB 1024 Analysis*, *supra* at n. 10 p. 5.

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ *FPL and Gulf Post-Workshop Comments*, *supra* at n. 50, p. 7.

IX. Additional Information:

- A. **Committee Substitute – Statement of Changes:**
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

- B. **Amendments:**

None.

This Senate Bill Analysis does not reflect the intent or official position of the bill's introducer or the Florida Senate.
