
OLR Bill Analysis

sSB 9

AN ACT CONCERNING CONNECTICUT'S ENERGY FUTURE.

SUMMARY

This bill makes several changes in the state's renewable energy and energy efficiency programs. It establishes a new tariff-based renewable energy program that generally requires the electric distribution companies (EDCs, i.e., Eversource and United Illuminating) to develop a procurement plan and 20-year tariffs (detailed rate schedules) for purchasing energy and renewable energy credits (RECs) from certain low-emission and zero-emission Class I renewable energy sources (e.g., fuel cells, solar, and wind). The plan and tariffs must be approved by the Public Utilities Regulatory Authority (PURA). Each EDC, under their procurement plan, must conduct annual solicitations to purchase energy and RECs produced by eligible generation projects over the tariffs' duration.

When the state's current residential solar investment program expires (see BACKGROUND), the bill also requires each EDC to offer two options for residential customers to sell the energy and RECS produced by certain Class I renewable energy sources. One is a "buy-all, sell-all" tariff option under which the EDC purchases all energy and RECs generated by the customer's system on a fixed cents-per-kilowatt-hour basis and the customer is charged the applicable retail rates for the energy they use. The second is a pricing structure under which customers would not be paid or charged for any energy that they simultaneously produce and use on site, but would be paid on a fixed cents-per-kilowatt-hour basis for the RECs generated by their systems and any energy production that is not simultaneously used on site. PURA must establish the rates for these residential tariffs.

Starting in 2020, the bill annually increases state's renewable portfolio standard (RPS) requirement for Class I renewable energy

sources until it reaches 40% in 2030. It also (1) reduces, starting in 2021, the alternative compliance payment that retail and wholesale suppliers must pay if they fail to meet the Class I requirement and (2) allows PURA to reduce the RPS requirement under certain conditions related to retiring the RECs purchased under the bill's new tariff-based renewable energy program.

The bill also reconfigures the funding mechanism for the state's Conservation and Load Management (CLM) Plan and the energy efficiency services provided under it. It replaces the three mills per kilowatt hour (kWh) conservation charge and three mills per kWh conservation adjustment charge currently paid by EDC customers with a six mills per kWh conservation adjustment mechanism. It eliminates the Conservation and Load Management Fund (a.k.a., the "Energy Efficiency Fund") in which revenues from the current charges are deposited and instead requires revenue from the new conservation adjustment mechanism to be used to further the CLM Plan (rather than be deposited in the fund). It also requires all services provided under the plan to be available to all EDC customers, regardless of how they heat their homes.

Under current law, the Clean Energy Fund, administered by the Connecticut Green Bank, is funded in part by a PURA-assessed charge on every electric customer in the state for at least one mill per kWh of the customer's electricity usage. Starting on July 1, 2019, through June 30, 2025, the bill increases this charge to at least two mills per kWh. The bill eliminates the charge after June 30, 2025 (§ 10).

The bill also makes numerous technical and conforming changes.

EFFECTIVE DATE: Upon passage, except the provisions that repeal the Energy Efficiency Fund and make conforming changes are effective July 1, 2020.

§§ 5-7 — NEW TARIFF-BASED RENEWABLE ENERGY PROGRAM
Zero-Emission and Low-Emission Tariffs

The bill requires PURA, by September 1, 2018 to open a proceeding

to establish a procurement plan and tariffs for each EDC. Each EDC must develop the procurement plan in consultation with the Department of Energy and Environmental Protection (DEEP) and submit it to PURA within 60 days after PURA opens the proceeding. The plan and tariffs may give a preference to technologies manufactured, researched, or developed in the state.

By July 1, 2019, and annually thereafter, each EDC must solicit and file for PURA's approval one or more 20-year tariffs consistent with the procurement plan. The tariffs must apply to customers that own or develop one of two types of new generation projects (zero-emission or low-emission). Both types of project must (1) be under two megawatts in size, (2) serve the EDC's distribution system, (3) be built after the solicitation conducted under the process below, and (4) use a Class I renewable energy source. However, zero-emission projects must emit no pollutants and low-emission projects must either (1) use anaerobic digestion or (2) emit no more than 0.07 pounds per megawatt-hour (MWh) of nitrogen oxides, 0.10 pounds per MWh of carbon monoxide, 0.02 pounds per MWh of volatile organic compounds and one grain (presumably of particulate matter) per 100 standard cubic feet.

Under the bill, to allow for a diversity of selected projects PURA may require the EDCs to conduct separate solicitations for zero-emission and low-emission projects based on their size. An eligible zero-emission project must not also be an eligible low-emission project.

Annual Solicitations. The bill requires each EDC to conduct an annual solicitation or solicitations, as determined by PURA, to purchase energy and RECs produced by eligible generation projects over the tariff's duration. The projects must generally be sized so that they do not exceed the load (demand) at the customer's individual electric meter, or a set of electric meters if they are combined for billing purposes. The bill specifies that the customer's applicable load is from the EDC serving the customer, as determined by the EDC.

If the customer is a state, municipal, or agricultural customer, the project's maximum size may also include the load of up to (1) five

state, municipal, or agricultural beneficial accounts identified by the customer and (2) five non-state or municipal beneficial accounts if they are critical facilities (e.g., hospitals) connected to a microgrid.

Under the bill, a shared clean energy facility, as defined in statute (see BACKGROUND), may participate in any of these solicitations under the program requirements established by DEEP and included in the procurement plan.

Price Cap. For the first year's solicitation for eligible zero-emission and low-emission projects, the bill requires PURA to establish a cap on the selected purchase price of energy and RECS on a cents-per-kWh basis. After the first year, the selected purchase price of energy and RECs on a cents-per-kWh basis in any given solicitation must not exceed the maximum selected purchase price for the same resources in the prior year's solicitation, unless PURA determines that circumstances have changed.

Residential Tariff Options

When the state's residential solar investment program expires, the bill requires each EDC to offer the following two options for residential customers to sell their products generated from a Class I renewable energy source that has a nameplate (generating) capacity of 25 kW or less to the EDC for up to a 20-year term.

1. A "buy-all, sell-all" tariff option under which the EDC purchases all energy and RECs generated by the customer's system on a fixed cents-per-kilowatt-hour basis (and the customer pays regular retail rates for all energy used).
2. A pricing structure that consists of two parts (a) a crediting of all kWh charges applicable to the customer for any energy that his or her system produced against any energy that the customer simultaneously consumed on a real-time basis (i.e., the customer would not be charged or paid for any electricity produced and simultaneously used on site) and (b) a tariff for the EDC to purchase, on a cents-per-kWh basis, (i) any excess

energy not simultaneously generated and consumed by the customer and (ii) all RECs produced by the customer. At the end of this tariff's term, customers who select this option would not be charged for any electricity produced and simultaneously used on site.

The bill requires a residential customer to select either option consistent with the bill's requirements. Their generation projects must be sized so they do not exceed the load at the customer's individual electric meter, as determined by the customer's EDC.

The bill requires PURA to open a proceeding, by September 1, 2018, to establish a rate for the residential tariffs. They may be based on the results of the competitive solicitations held under the bill's zero-emission and low-emission tariff provisions and must be guided by the state's Comprehensive Energy Strategy (CES). The bill allows PURA to (1) modify the rate for new residential customers based on changed circumstances and (2) establish an interim tariff rate before the residential solar investment program expires as an alternative to that program. Any residential customer using this tariff at his or her electric meter may not receive any residential solar investment program incentives at the same meter. Similarly, any customers participating in the residential solar investment program may not use the new tariff at the same meter.

Under the bill, residential customers are customers of a single-family dwelling or a multifamily dwelling with two to four units.

Other Tariff Provisions

Aggregate Cap. Under the bill, the aggregate procurement and tariff purchases of energy and RECs by EDCs under the above zero-emission, low-emission, and residential tariff programs must be budgeted up to \$35 million in year one and increase by up to an additional \$35 million per year in years two through six of the tariffs, subject to certain limits.

The bill limits annual purchases within each of the three programs,

in the aggregate, to 40% of the total annual dollar amount budgeted (e.g., no more than 40% of \$35 million could be used for various zero-emission facilities in one year). However, the bill allows that actual expenditures may vary based on reasonable variations between budgeted and actual energy production, as outlined in the procurement plan.

For budgeting purposes, the bill requires the amount of energy purchased under the second residential tariff option to be based on a reasonable forecast that PURA determines when a residential customer enters into the tariff.

PURA Requirements. The bill requires PURA to monitor the competitiveness of any procurement authorized under the bill's new program and allows it to adjust the annual purchase amount or other procurement parameters to maintain competitiveness. Any money unallocated in any given year must not roll into the next year's available funds. The obligation to purchase energy and RECs must be apportioned to the EDCs based on their respective distribution system loads, as determined by PURA.

PURA must give preference to projects that provide electric distribution system benefits, include energy storage systems, use time of use rates or other dynamic pricing, or provide other energy policy benefits identified in the CES.

PURA must establish tariffs to purchase energy on a cents-per-kWh basis once the tariffs created under the bill expire.

REC Retirements. The bill requires each EDC to retire the RECs it purchases under the bill's zero-emission, low-emission, and residential tariff programs on behalf of all ratepayers to satisfy the obligations of all electric suppliers and EDCs (in general, RECs are "retired" when they are used to satisfy RPS requirements and taken out of the REC market). PURA must establish procedures for these retirements.

EDC Cost Recovery. The bill requires an EDC's net costs from the tariffs under bill's zero-emission, low-emission, and residential

programs to be recovered on a timely basis through a non-bypassable, fully reconciling component of the electric rates charged to their customers. Any net revenues from the sale of products purchased under the tariffs must be credited to customers through the EDC's same rate component.

Net Metering Sunset (§ 5)

Under current law, “net metering” generally allows customers who own certain renewable energy resources to earn billing credits when the customer generates more power than he or she uses (essentially “running the meter backwards”). The bill ends net metering for (1) residential customers when the state’s residential solar investment program expires and (2) all other customers on December 31, 2018.

It allows customers who are net metering before then to continue receiving net metering credits under the current system through December 31, 2039. PURA must establish a rate on a cents-per-kWh basis for the EDC to buy electricity generated by a net metering customer after December 31, 2039.

Unallocated Z-REC & L-REC Funds (§ 6)

Under the state’s current Z-REC (zero emission) and L-REC (low emission) program, EDCs must enter into 15-year contracts to procure \$8 million in RECs from certain clean energy generation projects each year through 2018. Under the bill, any unallocated money for the program’s procurements expires when PURA approves the procurement plan for the new renewable energy tariffs.

§§ 1-4 — RENEWABLE PORTFOLIO STANDARD

Class I RPS Increase (§ 1)

The state’s RPS law requires the EDCs and retail electric suppliers to procure an increasing portion of their power from certain renewable and other clean energy resources. They may meet the requirement by buying RECs. Under current law, at least 17% of their power in 2018 must come from Class I renewable energy sources and in 2020, the last year of annual increases required under current law, at least 20% of their power must come from these sources.

Starting on January 1, 2020, the bill generally increases the 2020 Class I RPS requirement to 21%. However, it maintains the 20% RPS in 2020 for any electric supplier that entered into or renewed a retail electric supply contract before the bill's effective date.

The bill further increases the Class I RPS to 22.5% starting on January 1, 2021 and to 24% starting on January 1, 2022. It then continues increasing the Class I RPS by 2% each January 1 until it reaches 40% on January 1, 2030.

Under current law, an additional 4% of power must come from either Class I or II sources. The bill continues this requirement through 2030 and after.

PURA Adjustments to RPS (§§ 1 & 2)

The bill requires PURA to establish procedures for retiring the RECs purchased under the bill's new tariff-based renewable energy program, which may include reducing the Class I RPS requirements. Any such reduction must be based on the energy production that PURA forecasts will be procured under the new program.

The bill requires PURA to determine the reduction at least one year before it becomes effective. It also exempts EDCs from responsibility for any administrative or other costs or expenses associated with any difference between the number of RECs planned to be retired under PURA's reduction and the actual number of RECs retired.

(The bill also specifies that RPS requirements may be subject to PURA-required modifications for retiring RECs under the laws that authorize DEEP to oversee certain power procurement solicitations. However, as these laws do not authorize PURA to determine how the RECs procured through these solicitations must be retired, it is unclear how this provision would apply.)

Alternative Compliance Payment (§§ 3 & 4)

The law requires retail electric suppliers and the wholesale electric suppliers who provide power for the EDCs to pay an alternative compliance payment (ACP) if they fail to meet the RPS requirement

(wholesale suppliers must do so as part of their contracts with EDCs). Starting on January 1, 2021, the bill decreases the ACP for failing to comply with the Class I RPS from 5.5 cents per kWh to 4 cents per kWh.

Under current law, ACP payments must be refunded to EDC ratepayers to offset the costs to all EDC customers of contract costs from the state's current Z-REC and L-REC program. The bill expands the required ACP uses to include EDC costs for the tariffs entered into under the bill's new tariff-based renewable energy program.

§ 8 — REDUCED ENERGY CONSUMPTION

The bill specifies that the state may reduce energy consumption by at least 1.6 million MMBtus annually for each calendar year from 2020 through 2025. Under the bill, MMBtu is one million BTU of heat input.

§§ 9, 11-25 — ENERGY EFFICIENCY

Conservation and Load Management Plan and Services

By law, every three years the EDCs and gas companies must prepare and submit a combined Conservation and Load Management (CLM) Plan to implement cost-effective energy conservation programs and market transformation initiatives. The plan must be approved by the Energy Conservation Management Board and the DEEP commissioner. The bill requires the plan to also include (1) demand management initiatives and (2) steps needed to reduce energy consumption by at least 1.6 million MMBtus annually for each calendar year from 2020 through 2025.

Current law requires the services provided under the plan to be available to all customers of EDCs and gas companies. The bill specifies that an EDC's customers may not be denied these services based on the fuel the customer uses to heat his or her home. (Under current practice, customers who do not heat their homes with gas only qualify for electricity-saving services, unless other funding is available.)

Energy Efficiency Funding

By law, a portion of the programs and services provided under the CLM plan are funded through conservation charges paid by EDC and natural gas customers and the utility companies administer the plan's programs and services (CGS § 16-245m). Under current law, EDC customers must pay a conservation charge of three mills per kWh of electricity used, plus an additional conservation adjustment charge of up to three mills per kWh if the CLM plan's budget for EDCs exceeds the revenues from the conservation charge. (In practice, the combined conservation and conservation adjustment charges are currently 6 mills per kWh.) The funds from the conservation charge and conservation adjustment charges must be deposited in the Energy Conservation and Load Management Fund, and EDCs must apply to the Energy Conservation Management Board (ECMB) to be reimbursed for their expenditures under the plan.

The bill eliminates the fund (on July 1, 2020), the EDC's three mill conservation charge (on July 1, 2020), and the conservation adjustment charge (upon passage), and the requirement for EDCs to apply to the ECMB for reimbursements. It instead requires, upon passage:

1. PURA, within 60 days after the DEEP commissioner approves a CLM plan, to ensure that the revenues required to fund the plan, rather than the plan's budget, are provided through a fully reconciling conservation adjustment mechanism (CAM) and
2. the EDCs to collect a CAM that ensures the CLM Plan is fully funded by collecting up to six mills per kWh of electricity sold to each of its end use customers during the three years of any CLM Plan.

The bill does not change the conservation charge paid by gas company customers but requires the revenues from it to fund the plan, rather than the plan's budget. The bill makes numerous similar conforming changes such as requiring funds currently required to be deposited in the CLM fund to instead be used to further the CLM Plan. (Presumably, this will allow CLM funds to be used directly by the utility companies for CLM programs and services without first being

deposited in the fund, which the bill eliminates.)

BACKGROUND

Residential Solar Investment Program

The Residential Solar Investment Program, administered by the Connecticut Green Bank, offers financial incentives to purchase or lease certain residential solar photovoltaic systems and requires the EDC to purchase the renewable energy credits produced through the program. By law, the program must expire on December 31, 2022, or when the program deploys 300 megawatts of residential solar photovoltaic installations, whichever occurs earlier.

Shared Clean Energy Facility

By law, “shared clean energy facilities” are Class I renewable energy sources that (1) are served by an EDC, (2) have a nameplate capacity rating of four MW or less, and (3) have at least two subscribers. In general, a customer subscribes for a portion of the electricity produced at the facility and the electricity produced under the subscription is then used to offset the subscriber's electric costs at another billing meter (e.g., a subscription for 100 kWh produced by the facility would reduce the subscriber's residential electric bill by 100 kWh).

Related Bills

SB 336, reported favorably by the Energy and Technology Committee, requires the DEEP commissioner to establish a state-wide shared clean energy program.

HB 5537, reported favorably by the Planning and Development Committee, requires the DEEP commissioner to establish a two-year municipal airport shared solar pilot program to help develop shared solar facilities located on municipal airports.

COMMITTEE ACTION

Energy and Technology Committee

Joint Favorable Substitute

Yea 20 Nay 5 (03/29/2018)