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ResearchReport

Millstone Power Procurement

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Issue

This report discusses the power procurement authorized by PA 17-3, June Special Session (JSS). (For more information on that legislation and related requirements, see OLR Report 2018-R-0313.)

Summary

Among other things, PA 17-3, JSS, authorized the Department of Energy and Environmental Protection (DEEP) and the Public Utilities Regulatory Authority (PURA) to conduct a solicitation and procurement for bids from zero-carbon generation facilities. DEEP selected Millstone's bid for 9 million megawatt-hours, and, after a renegotiation, PURA approved power purchase agreements (PPA) between the state's electric distribution companies (EDCs, i.e., Eversource and United Illuminating (UI)) and Dominion, which is Millstone's owner.

Under the agreements, the EDCs must purchase 50% of Millstone's output over 10 years (2019 to 2029). The EDCs also receive the zero-carbon environmental attributes associated with 100% of Millstone's output over this period. The agreements additionally contemplate "new revenue sources" that may arise for Millstone, requiring Dominion to make commercially reasonable efforts to qualify for and obtain new revenue that may become available and entitling the EDCs to a proportionate amount.

A July 1, 2020, rate adjustment for Eversource customers, which PURA later suspended, included an increase to the Federally Mandated Congestion Charge (FMCC). According to PURA, the increased FMCC was driven in part by payments associated with Eversource's Millstone PPA. (UI has yet to incorporate Millstone PPA payments into its rates.) PURA has temporarily suspended Eversource's rate adjustment and is currently reexamining it "to ensure Eversource is not over-collecting revenues in the short term at the expense of ratepayers during this period of financial hardship."

Statutory Requirements

As authorized by [PA 17-3, JSS], DEEP and PURA conducted a solicitation and procurement for bids from the following types of zero-emission facilities:

1. eligible nuclear power generation facilities,
2. hydropower,
3. Class I renewable resources (e.g., wind and solar), and
4. energy storage systems.

Generally, to conduct an energy procurement, DEEP directs the EDCs to enter into long-term agreements to purchase a specified amount of energy (or related products) based on responses to DEEP's solicitation of proposals to provide various types of energy. This allows selected resources to have a constant price for their energy over a long period of time rather than selling for fluctuating prices on the wholesale energy market or through bilateral agreements with other parties. It also allows resources to receive a higher price than they may receive on the wholesale markets to the extent that the procurement process includes consideration of non-price factors (e.g., zero emissions) when selecting bids. The EDCs, which, in Connecticut do not own generation, can resell the purchased energy and recover costs (e.g., the difference between the purchase price and the sale price) from ratepayers through a reconciling component of their bills (or, distribute the profits to ratepayers should the procured energy and related products sell for more than the purchase price). Thus, the cost or benefit of such procurements is not borne by taxpayers, but by ratepayers.

Among other things, PA 17-3, JSS, required the DEEP commissioner to direct the EDCs to enter into agreements to purchase energy and other products under selected proposals if the commissioner finds the proposals are "in the ratepayers' best interest." Under the act, this means ratepayer benefits outweigh costs based on (1) whether the proposal's delivered prices are less than forecasted energy and capacity prices and (2) several other factors, including the following:

1. electric system operations and reliability;
2. the extent to which the proposal will contribute to meeting ISO-New England's local sourcing requirement, and state greenhouse gas reduction and air quality requirements;
3. fuel diversity; and
4. alignment with the state's Integrated Resource Plan and Comprehensive Energy Strategy.

Bid Selection

DEEP selected Millstone's bid for 9 million megawatt-hours (MWh) (among other winning bids) but directed the EDCs to negotiate with Dominion (Millstone's owner) for a better price (DEEP Notice of

Final Determination, p. 15). In an addendum to its final determination, DEEP determined that contracts entered into at the negotiated price met the act's criteria.

PPA Terms for Pricing and Products

The two EDCs entered into separate (but largely similar) 10-year PPAs with Dominion. The agreements require the EDCs to purchase certain percentages of Millstone's output, as shown in Table 1. For most of these purchases, the price required under the PPAs is $49.99/MWh. (While the amount the EDCs are obliged to purchase is expressed as a percentage of Millstone's total output, the agreements also establish a "contract maximum amount," expressed in megawatts of capacity. If Millstone's output is such that the amount each EDC must purchase exceeds the contract maximum amount, the EDC may potentially pay a lower price for the excess amount.)

Under the agreements, Dominion agrees not to curtail Millstone's output. Dominion must use commercially reasonable efforts to maximize production when New England energy prices are high (i.e., anticipated peak demand). The agreements generally give the EDCs exclusive right to resell energy or environmental attributes they purchase.

Table 1: Percentage of Millstone's Output Each EDC Must Purchase by Year (Rounded)

Year	*Eversource*	*United Illuminating*
2019	40%	10%
2020	44%	11%
2021	41%	10%
2022	42%	10%
2023	44%	11%
2024	41%	10%
2025	42%	10%
2026	44%	11%
2027	41%	10%
2028	42%	10%
2029	44%	11%

Under the agreements, the EDCs must purchase approximately 50% of the Millstone's energy output, but they also receive the zero-carbon environmental attributes associated with 100% of the facility's output.

For renewable energy (e.g., solar), environmental attributes are commodified in renewable energy certificates (RECs), which can be bought and sold in a market in order to satisfy renewable portfolio standards (RPS). It is not yet clear how the EDCs will monetize zero-carbon environmental attributes purchased under the PPAs that are generally not included in state RPSs, which focus on renewable energy rather than zero carbon sources. Such purchases may be able to be used to justify environmental claims, allowing an EDC to advertise that it is carbon neutral or will be by a certain date, for example.

The agreements also contemplate “new revenue sources” that may arise for Millstone, requiring Dominion to make commercially reasonable efforts to qualify for and obtain new revenue that may become available and entitling the EDCs to a proportionate amount. Under the agreement, a new revenue source is any new ISO-New England rule, or state or federal law or regulation taking effect after January 1, 2019, that creates a program, product, or ancillary service providing direct net compensation for Millstone for reliability, resource diversity, grid resilience, fuel or energy diversity, or security attributes.

July 2020 Rate Adjustment and Suspension

For past procurements allowing the EDCs to recover costs, PURA has generally directed them to do so through the Federally Mandated Congestion Charge (FMCC), a component on ratepayers’ bills.

Effective July 1, 2020, Eversource ratepayers experienced an increase in the delivery component of their bills, including the FMCC, as shown in Table 2. (In addition to the volumetric charges shown in Table 2, residential customers pay a $9.62 charge per month.)

Table 2: July Change to Rate 1 (Residential) Delivery Charges (Cents/Kilowatt-Hour)

Charge	*Previous Rate*	*July 1 Rate (Later Reversed)*	*Change*
Distribution Charge	6.005	6.005	--
Electric System Improvements Charge	0.435	0.431	-0.004
Revenue Adjustment Mechanism	-0.011	0.182	0.193
Transmission Charge	2.601	3.785	1.184
Combined Public Benefits Charge	1.621	1.621	--
Competitive Transition Assessment Charge	-0.018	-0.018	--
FMCC Delivery Charge	1.585	3.048	1.463
Total Rate Increase			2.836

Source: Eversource Filings Effective May 1, 2020; Eversource Filings Effective July 1, 2020

Thus, for a residential customer using 700 kWh in a month, the delivery portion of the bill increased from $95.15 to $115.00. For this customer, the transmission portion increased from $18.21 to $26.50. The FMCC increased from $11.10 to $21.34. According to PURA, the increase in the FMCC was primarily driven by payments associated with the Millstone PPA, though various other programs are also funded through the FMCC. (UI has yet to incorporate Millstone-related costs into its rates.)

Additionally, because of the COVID-19 pandemic, many Connecticut residents were working from home during the prior months, keeping children home from schools and daycares, and otherwise spending more time at home. A heat wave also occurred in many areas of the state during the first billing period with the new rate. For many households, these factors caused an increase in home energy use, which further amplified the effect of the rate increase described above.

In response to these events, PURA began a reexamination of these administrative changes (Docket 20-01-01). It ordered Eversource to suspend the rate adjustment and revert to rates in place as of June 30, 2020. According to PURA, the intent of the reexamination is "to ensure Eversource is not over-collecting revenues in the short term at the expense of ratepayers during this period of financial hardship." PURA held a hearing on the issue on August 24, 2020. Briefs and reply briefs from parties are due in early September.

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