STATE OF VERMONT PUBLIC UTILITY COMMISSION

Case No. 22-0829-INV

2022 standard-offer prices for existing
hydroelectric plants with a nameplate capacity
of 5 MW or less

Order entered: 03/16/2022

2022 STANDARD-OFFER PRICE FOR EXISTING HYDROELECTRIC PLANTS

I. <u>Introduction</u>

In today's Order, the Vermont Public Utility Commission ("Commission") recalculates and adjusts the standard-offer price elements for energy, capacity, and environmental attributes for use in standard-offer contracts for existing hydroelectric plants. In addition, we make no adjustments to the price elements for avoided line losses and the value of a long-term contract.

II. BACKGROUND

The Commission is required to establish the standard-offer price for existing hydroelectric plants less than or equal to 5 MW in nameplate capacity as the sum of five elements identified in the statute.¹

The five elements of the standard-offer price are: (1) the two-year rolling average of the ISO New England Vermont zone hourly locational marginal price for energy; (2) the two-year rolling average of the value of the plant's capacity in the ISO New England Forward Capacity Market; (3) the value of avoided line losses; (4) the two-year rolling average of the market value of environmental attributes, including renewable energy credits; and (5) the value of a 10- or 20-year contract.²

The Commission is required annually to recalculate and adjust the price elements of energy, capacity, and environmental attributes for all executed contracts.³ The Commission may also periodically adjust the value of environmental attributes of an executed contract based upon

¹ 30 V.S.A. § 8005a(p)(3).

² 30 V.S.A. § 8005a(p)(3)(A) through (E).

³ 30 V.S.A. § 8005a(p)(4)(A)(i).

whether the unit becomes certified by the Low-Impact Hydropower Institute of Portland, Maine ("LIHI")⁴ or loses such certification.⁵

The price elements of avoided line losses and the value of a long-term contract remain fixed at their values at the time a contract is signed for the duration of an executed contract. The Commission may annually adjust the two elements for inclusion in future executed contracts.⁶

III. <u>Discussion and Conclusion</u>

Energy, Capacity, and Environmental Attributes

Consistent with statutory requirements, in previous Orders, the Commission established methodologies to annually recalculate and adjust the price elements of energy, capacity, and environmental attributes.⁷

The 2022 energy price element is 3.35 cents per kWh. This value is calculated using the two-year rolling average of the ISO New England Vermont zone hourly real-time locational marginal price for calendar years 2020 and 2021.

The 2022 capacity price element is \$4.96 per kW-month. This value is calculated based upon the two-year average payment rate for the Forward Capacity Auction 2020-2021 results and 2021-2022 results. Consistent with past determinations, for units that serve as load reducers, a 15% adder shall be made to the capacity revenue value to reflect that the unit is reducing the utility's capacity reserve requirement. The total amount paid for capacity each month shall be the capacity price element multiplied by the ISO New England Forward Capacity Market-qualified winter and summer capacity ratings for the hydroelectric plant, adjusted further by the contract adder. If the plant is a load-reducer, the capacity rating is its generation at the time of the ISO New England peak for the previous two years.

⁴ LIHI is a non-profit 501(c)(3) organization dedicated to reducing the impacts of hydroelectric generation through the certification of hydroelectric projects that have avoided or reduced their environmental impacts pursuant to LIHI's criteria. In order to be LIHI-certified, a hydroelectric facility must meet criteria in the following eight areas: river flows, water quality, fish passage and protection, watershed protection, threatened and endangered species protection, cultural resource protection, recreation, and facilities recommended for removal.

⁵ 30 V.S.A. § 8005a(p)(4)(A)(ii).

⁶ 30 V.S.A. § 8005a(p)(4)(B)(ii).

⁷ See Docket 7874, Order of 3/6/15; Docket 7874, Order of 4/18/16; Case No. 17-3148-INV, Order of 5/25/17; Case No. 17-3148-INV, Order of 3/13/18; Case No. 18-0360-INV, Order of 9/17/19; and Case No. 21-1090-INV, Order of 3/16/21.

The price element reflecting the value for environmental attributes is determined based on the renewable energy credits for which an existing hydroelectric plant qualifies. Existing hydroelectric plants eligible for the standard-offer program may qualify for one of three categories of renewable energy credits: Massachusetts Class II, Connecticut Class I, and Maine Existing. The price element value for each category of renewable energy credit is determined using the two-year average price. The two-year average prices represent the two-year rolling average of the market value of environmental attributes, consistent with the statutory requirements of Section 8005a(p)(3)(D). The Standard Offer Facilitator submits an annual filing of the broker data used to determine these values. Accordingly, for use in 2022 standard-offer contracts, a plant qualifying for Massachusetts Class II renewable energy credits shall receive a price element value of 2.31 cents/kWh, a plant qualifying for Connecticut Class I renewable energy credits shall receive a price element value of 3.84 cents/kWh, and a plant qualifying for Maine Existing renewable energy credits shall receive a price element value of 0.24 cents/kWh.

Avoided Line Losses and Value of Long-Term Contract

With respect to the price elements addressing avoided line losses and the value of long-term contracts, the Commission is not required on an annual basis to revise its previously determined values for the two price elements. The Commission recently completed a review of these price elements. Thus, the Commission finds that a review of these price elements for use in 2022 standard-offer contracts is not needed, and no revisions will be made to these price elements.

Accordingly, the value for the price element addressing avoided line losses is either 3% or 5% of the sum of the value of the energy and capacity elements. If there is one transformation (from 115 kV to interconnection voltage), then the losses are assumed to be 3%. If there is an additional transformation (from sub-transmission voltage to interconnection voltage), then the losses are assumed to be 5%. ¹⁰ In addition, the price element reflecting the value of a long-term

⁸ See Case No. 22A-0529.

⁹ See Case No. 21-1090-INV, Order of 12/14/21.

¹⁰ See Docket 7874, Order of 3/6/15; Docket 7874, Order of 4/18/16; Case No. 17-3148-INV, Order of 5/25/17; Case No. 17-3148-INV, Order of 3/13/18; Case No. 18-0360-INV, Order of 9/17/19; and Case No. 21-1090-INV, Order of 12/14/21.

contract is a 1% adder to the value of the energy and capacity components of the price for 10-year contracts and a 2% adder for 20-year contracts.¹¹

IV. ORDER

IT IS HEREBY ORDERED, ADJUDGED, AND DECREED by the Vermont Public Utility Commission ("Commission") that effective for any standard-offer contract executed after the issuance of this Order for existing hydroelectric plants under 30 V.S.A. § 8005a(p), the standard-offer price elements for energy, capacity, environmental attributes, avoided line losses, and the value of long-term contracts shall be as determined in this Order.

 $^{^{11}}$ See Case No. 18-0360-INV, Order of 9/17/19 and Case No. 21-1090-INV, Order of 12/14/21.

Dated at Montpelier, Vermont, this _	16th day of March, 2022	<u>. </u>
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	Anthony Z. Roisman	PUBLIC UTILITY
ra	Margaret Cheney	Commission
	J. Riley Allen	OF VERMONT

OFFICE OF THE CLERK

Filed: March 16, 2022

Attest: Mdua Commission

Clerk of the Commission

Notice to Readers: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Commission (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: puc.clerk@vermont.gov)

Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Commission within 30 days. Appeal will not stay the effect of this Order, absent further order by this Commission or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Commission within 28 days of the date of this decision and Order.

PUC Case No. 22-0829-INV - SERVICE LIST

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