

STATE OF VERMONT  
PUBLIC UTILITY COMMISSION

Case No. 23-1860-INV

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2023 standard-offer prices for existing hydroelectric plants with a nameplate capacity of 5 MW or less and farm methane plants	
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Order entered: 08/08/2023

**ORDER - 2023 STANDARD-OFFER PRICES FOR EXISTING  
HYDROELECTRIC PLANTS AND FARM METHANE PLANTS**

In this Order, the Vermont Public Utility Commission (“Commission”) adopts the conclusions and recommendations made in the Hearing Officer’s proposal for decision. The proposal for decision was circulated to the parties. The parties’ comments and our determinations are addressed in the Commission discussion and conclusions section below.

**PROPOSAL FOR DECISION**

**I. INTRODUCTION**

The Commission is required annually to determine the price elements for use in standard-offer contracts for existing hydroelectric plants. In this proposal for decision, I recommend recalculating and adjusting the price elements for energy, capacity, and environmental attributes, and I recommend no adjustments to the price elements for avoided line losses and the value of a long-term contract.

The Commission is also required annually to establish prices for farm methane projects. In this proposal for decision, I recommend prices for small and large farm methane projects.

**II. BACKGROUND**

The Commission establishes the standard-offer price for existing hydroelectric plants less than or equal to 5 MW in nameplate capacity using the sum of five elements identified in statute.<sup>1</sup>

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

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<sup>1</sup> 30 V.S.A. § 8005a(p)(3).

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.<sup>2</sup>

The Commission is required annually to recalculate and adjust the price elements of energy, capacity, and environmental attributes for all executed contracts.<sup>3</sup> The Commission may also periodically adjust the value of environmental attributes of an executed contract based upon whether the unit becomes certified by the Low-Impact Hydropower Institute of Portland, Maine (“LIHI”) or loses such certification.<sup>4</sup>

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.<sup>5</sup> Pursuant to Section 8005a(f)(3), the Commission is required to annually review the prices under the standard-offer program.

According to Section 8005a(g), farm methane projects remain outside of the programmatic cap (i.e., no restrictions on the number of projects that can participate in the program). As part of an annual review under Section 8005a(f)(3), the Commission determines the prices that will be used for farm methane projects under the standard-offer program.

### **III. DISCUSSION AND CONCLUSION**

#### **A. Existing Hydroelectric Plants**

##### 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

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<sup>2</sup> 30 V.S.A. § 8005a(p)(3)(A) through (E).

<sup>3</sup> 30 V.S.A. § 8005a(p)(4)(A)(i).

<sup>4</sup> 30 V.S.A. § 8005a(p)(4)(A)(ii). LIHI is a not-for-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. 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.

<sup>5</sup> 30 V.S.A. § 8005a(p)(4)(B)(ii).

environmental attributes.<sup>6</sup>

I recommend that the 2023 energy price element be 6.39 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 2021 and 2022.

I recommend that the 2023 capacity price element be \$4.22 per kW-month. This value is calculated based upon the two-year average payment rate for the Forward Capacity Auction 2021-2022 results and 2022-2023 results. Consistent with past determinations, for units that serve as load reducers, I recommend that a 15% adder be made to the capacity revenue value to reflect that the unit is reducing the utility's capacity reserve requirement. Thus, the total amount paid for capacity each month will 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.

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 prices. 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.<sup>7</sup> Accordingly, for use in 2023 standard-offer contracts, I recommend that a plant qualifying for Massachusetts Class II renewable energy credits receive a price element value of 2.54 cents/kWh, a plant qualifying for Connecticut Class I renewable energy credits receive a price element value of 3.73 cents/kWh, and a plant qualifying for Maine Existing renewable energy credits receive a price element value of 0.77

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<sup>6</sup> 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; Case No. 21-1090-INV, Order of 3/16/21; and Case No. 22-0829-INV, Order of 3/16/22.

<sup>7</sup> See Case No. 23A-0723.

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 to annually revise its previously determined values for the two price elements. The Commission recently completed a review of these price elements in 2021.<sup>8</sup> It is my understanding that no existing hydroelectric plants are likely to seek a standard-offer contract for 2023. Thus, I recommend that the Commission find that a review of these price elements for use in 2023 standard-offer contracts is not needed and make no revisions to these price elements.

Accordingly, I recommend that 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%.<sup>9</sup> In addition, I recommend that the price element reflecting the value of a long-term 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.<sup>10</sup>

### **B. Farm Methane Plants**

According to Section 8005a(g), farm methane projects remain outside the standard-offer program's cumulative plant capacity amount of 127.5 MW, and these projects may request a standard-offer contract at any time. The Commission established a process to fold the review of farm methane prices into the annual proceeding to update the prices available to existing hydroelectric facilities under 30 V.S.A. § 8005a(p)(4).<sup>11</sup>

For 2023, no participant requested a review of the prices for farm methane projects. I recommend that the Commission adopt the 2022 prices for use in 2023. Accordingly, I recommend that the Commission establish a price of \$0.145 per kWh, fixed over the term of the

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<sup>8</sup> See Case No. 21-1090-INV, Order of 12/14/21.

<sup>9</sup> 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.

<sup>10</sup> See Case No. 18-0360-INV, Order of 9/17/19; Case No. 21-1090-INV, Order of 12/14/21; and Case No. 22-0829-INV, Order of 3/16/22.

<sup>11</sup> See Case 21-4085-INV, Order of 2/15/22 at 10.

20-year contract, for large farm methane projects, and a price of \$0.199 per kWh, fixed over the term of the 20-year contract, for small farm methane projects.<sup>12</sup> The large farm methane category includes projects with a nameplate capacity greater than 150 kW, and the small farm methane category includes projects with a nameplate capacity less than or equal to 150 kW.

### **C. Recommendations for Statutory Changes**

As part of this proposal for decision, I am seeking comment on whether the Commission should recommend statutory changes to Section 8005a(p)(4) to the Vermont Legislature. My concern is that the Commission and other stakeholders are expending resources when there currently are no existing hydroelectric plants eligible to take a standard-offer contract. That is, any eligible plant has already taken a contract under other programs, including the net-metering program and Commission Rule 4.100.

As part of comments on this proposal for decision, I ask the participants to address whether there is a need for a standard-offer program for existing hydroelectric units and whether the Commission should recommend that the Vermont Legislature sunset Section 8005a(p)(4).

In addition, I am seeking comment on whether the Commission should recommend statutory changes to Section 8005a(g). Farm methane projects remain outside the cumulative plant capacity, and the Commission is required to conduct an annual review of farm methane prices. In the last several years, no farm methane projects have sought a standard-offer contract. My concern is that the Commission and other stakeholders are expending resources annually to establish prices when there is no interest in projects accepting a standard-offer project.

As part of comments on this proposal for decision, I ask the participants to address whether farm methane prices should be reviewed on annual basis and whether the Commission should recommend changes to Section 8005a(g) to allow prices to be reviewed on a less frequent basis (e.g., on a five-year basis or at the request of a stakeholder). Between reviews, the standard-offer price most recently established would remain in place. In addition, I ask the participants to address whether a standard-offer program for farm methane projects is needed.

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<sup>12</sup> See Case No. 19-4466-INV, Order of 06/11/2020; Case No. 20-2935-INV, Order of 4/26/21; and Case 21-4085-INV, Order of 2/15/22.

**IV. CONCLUSION**

In this proposal for decision, I make recommendations for the price elements for use in any 2023 standard-offer contracts for existing hydroelectric plants. In addition, I recommend prices for small and large farm methane projects. Finally, I seek comments from stakeholders on whether any statutory changes concerning the current price determination requirements are advisable.

This proposal for decision is being served on all parties to this proceeding in accordance with 3 V.S.A. § 811.

*Mary Jo Krolewski*

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Mary Jo Krolewski  
Hearing Officer

## V. COMMISSION DISCUSSION AND CONCLUSION

The Department filed comments stating that it had no objections to the prices established in the proposal for decision. With respect to possible statutory changes, the Department asserts that the option for future standard-offer hydroelectric or farm methane facilities may yet benefit Vermont. The Department does not oppose statutory changes that would allow less-frequent price updates, such as upon a request to participate in the program, to minimize the administrative burden of the program. No party recommended removing either hydroelectric plants or farm methane projects from the standard-offer program.

Based on our review of the proposal for decision and the Department's comments, we adopt the recommendations and conclusions of the Hearing Officer regarding the standard-offer price elements for existing hydroelectric plants and the prices for farm methane projects after March 1, 2023. The Commission will consider proposing potential statutory changes that would preserve the benefits of the program while reducing its administrative burden. If the Commission develops draft statutory changes, the Commission will circulate the potential language to the Department and stakeholders before presenting a proposal to the Vermont Legislature.


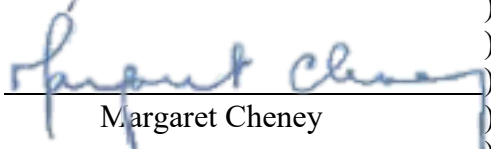
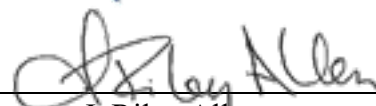
## VI. ORDER

IT IS HEREBY ORDERED, ADJUDGED, AND DECREED by the Vermont Public Utility Commission ("Commission") that:

1. 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.

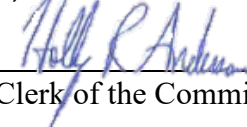
2. Effective for any standard-offer contract executed after March 1, 2023, pursuant to 30 V.S.A. § 8005a(f)(2), the following will serve as the prices for farm methane projects under the standard-offer program: (1) \$0.145 per kWh fixed over the 20-year contract for projects with a nameplate capacity greater than 150 kW; and (2) \$0.199 per kWh fixed over the 20-year contract for projects with a nameplate capacity less than or equal to 150 kW.

Dated at Montpelier, Vermont, this 8th day of August, 2023.

 _____ )	) PUBLIC UTILITY
Anthony Z. Roisman )	) COMMISSION
 _____ )	) OF VERMONT
Margaret Cheney )	
 _____ )	
J. Riley Allen )	

OFFICE OF THE CLERK

Filed: August 8, 2023

Attest:   
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.*



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