STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Case No. 24-0822-INV

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| 2024 standard-offer prices for existing hydroelectric plants with a nameplate capacity of 5 MW or less and farm methane plants | |

Order entered: 06/07/2024

# ORDER ESTABLISHING 2024 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.

## 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 long-term contract value.

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. I also recommend revisions to the standard-offer contract to reflect administrative deposit requirements consistent with other standard-offer categories.

## II. BACKGROUND AND PROCEDURAL HISTORY

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.[1]

[1] 30 V.S.A. § 8005a(p)(3).

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

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.[5] 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.

Procedural History

On March 7, 2024, the Standard Offer Facilitator submitted proposed values for the environmental attribute price element developed using broker data.[6] The proposed values

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[2] 30 V.S.A. § 8005a(p)(3)(A) through (E).
[3] 30 V.S.A. § 8005a(p)(4)(A)(i).
[4] 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.
[5] 30 V.S.A. § 8005a(p)(4)(B)(ii).
[6] Case No. 24A-0744. The Standard Offer Facilitator's filing has been entered into this case.

represent the two-year rolling average of the market value of three categories of renewable energy credits: Massachusetts Class II, Connecticut Class I, and Maine Existing.

In its March 7, 2024, filing, the Standard Offer Facilitator requested that the Commission clarify the language in the standard-offer contract developed for farm methane plants with respect to the commissioning milestones and contract deposit amount.

The Commission provided an opportunity for comment on: (1) the five price elements used to determine 2024 prices for existing hydroelectric plants; (2) the 2024 prices for farm methane plants; and (3) the Standard Offer Facilitator's request to clarify the farm methane standard-offer contract.

On April 5, 2024, the Vermont Department of Public Service ("Department") filed comments.

No other comments were filed with the Commission.

## III. Discussion and Conclusion

### A. Existing Hydroelectric Plants

In the discussion below, I provide my recommendations for recalculating and adjusting the price elements for energy, capacity, and environmental attributes, and my recommendations for the price elements for avoided line losses and the value of a long-term contract.

The Department supports my recommendations. In its comments, the Department recommends using the methodology from the previous year to adjust the energy and capacity price elements and recommends using the values for line losses and the value of a long-term contract from the previous year. The Department states it had no concerns regarding the proposed values for the environmental attribute price elements provided by the Standard Offer Facilitator.

#### 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]

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[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; Case No. 21-1090-INV, Order of 3/16/21; Case No. 22-0829-INV, Order of 3/16/22; and Case 23-1860-INV, Order of 8/8/23.

I recommend that the 2024 energy price element be $0.0595 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 2022 and 2023.

I recommend that the 2024 capacity price element be $2.90 per kW-month. This value is based on the two-year average payment rate for the Forward Capacity Auction 2022-2023 results (Auction #13) and 2023-2024 (Auction #14) 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.[8] Accordingly, for use in 2024 standard-offer contracts, I recommend that a plant qualifying for Massachusetts Class II renewable energy credits receive a price element value of $0.0271 per kWh, a plant qualifying for Connecticut Class I renewable energy credits receive a price element value of $0.0376 per kWh, and a plant qualifying for Maine Existing renewable energy credits receive a price element value of $0.087 per kWh.

[8] Case 24-0822-INV, Standard Offer Facilitator letter to Clerk of Commission, dated March 7, 2024.

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 completed a review of these price elements in 2021.[9] It is my understanding that no existing hydroelectric plants are expected to seek a standard-offer contract for 2024. Thus, I recommend that the Commission find that a review of these price elements for use in 2024 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%.[10] In addition, I recommend that the Commission maintain the long-term contract price element at its current levels of 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]

**B. Farm Methane Plants**

2024 Prices

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. In 2022, the Commission incorporated 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).[12]

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[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; Case No. 21-1090-INV, Order of 12/14/21; Case No. 22-0829-INV, Order of 3/16/22; and Case 23-1860-INV, Order of 8/8/23.

[11] *See* Case No. 18-0360-INV, Order of 9/17/19; Case No. 21-1090-INV, Order of 12/14/21; Case No. 22-0829-INV, Order of 3/16/22; and Case 23-1860-INV, Order of 8/8/23.

[12] *See* Case 21-4085-INV, Order of 2/15/22 at 10.

With respect to the 2024 prices, no participant requested a review of the prices for farm methane projects. The Department represented that it is aware of some interest in farm methane projects at the 2023 prices (combined with federal funding).[13]

I recommend that the Commission adopt the 2023 prices for use in 2024. Accordingly, I recommend that the Commission establish a price of $0.145 per kWh, fixed over the term of the 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.[14] 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.

Contract Deposits and Milestones

As part of the annual review, the Standard Offer Facilitator requests clarification on the deposits and milestones required for the standard-offer contract in the farm methane category.

First, the Standard Offer Facilitator contends that the deposit amount of $15 per kW in the farm methane contract is inconsistent with the deposit amount established for other standard-offer categories. In Section 9, Administrative Fee and Deposit, the standard-offer contract requires a $200, non-refundable administrative fee, and a deposit of $15 per kW of installed capacity. The deposit amount required for other standard-offer categories is $25 per kW: $10 per kW due with a request-for-proposal application and $15 per kW due upon program acceptance.[15] The Standard Offer Facilitator recommends that farm methane plants be required to pay a deposit of $25 per kW, recognizing that a bifurcated deposit structure is not applicable to farm methane plants because they are outside the programmatic cap.

The Department recommends that farm methane plants pay a deposit consistent with the deposit paid by other standard-offer plants. The Department states that the fee helps offset costs incurred by the Commission to administer the program and ensures that plants that enter into a

[13] *See*, Jim Muir, Agricultural Digesters, *$2.4 Million Formally Announced by USDA for Three More of Our Farms*, February 9, 2024, available at https://agriculturaldigesters.com/news/2-4-million-allocated-for-digesters-at-three-vermont-dairy-farms/.

[14] *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; and Case 23-1860-INV, Order of 8/8/23.

[15] Docket 7873, Order of 08/08/12 at 7; Docket 7873, Order of 03/25/13 at 3.

standard-offer contract with the Standard Offer Facilitator incur some financial risk to encourage the successful commissioning of the standard-offer plant.

I recommend that the Commission establish the deposit requirement for farm methane plants at $25 per kW, consistent with the requirement for other standard-offer categories. In addition, consistent with other standard-offer categories, I recommend that once the farm methane plant is commissioned, or if the petition for a certificate of public good is denied, that $25 per kW of the deposit be returned. Further, I recommend that the Commission direct the Standard Offer Facilitator to file a revised standard-offer contract for Commission approval consistent with these new deposit requirements for farm methane plants.

Second, the Standard Offer Facilitator suggests that there may be a conflict between the standard-offer contract terms regarding milestones and 30 V.S.A. § 8005a(j)(1). In Section 9, Administrative Fee and Deposit, the standard-offer contract for farm methane plants requires that the contract deposit be refunded if the plant is commissioned within the applicable milestone date. If the plant is not commissioned within the applicable milestone date, the deposit is forfeited, unless the petition for a certificate of public good is denied. However, Section 8005a(j)(1) states the commissioning milestones of 24 and 36 months contained in Sections 8005a(j)(1)(A) and (B) do not apply to the farm methane category.

This apparent conflict is resolved by Section 7, Milestones, in the standard-offer contract. Section 7 states that the commissioning milestones of 24 and 36 months do not apply to farm methane plants. Instead, Section 7 requires farm methane plants to file a complete Section 248 application with the Commission within one year of the date of the signed contract. The one-year requirement of Section 7 is the applicable milestone referred to in Section 9 of the contract. Section 7's one-year milestone requirement is not prohibited by Section 8005a(j)(1) and is consistent with Section 8005a(h), which requires the Commission to administer the process of applying for and obtaining a standard-offer contract in a manner that ensures that the resources and capacity of the standard-offer program are used for plants that are reasonably likely to achieve commissioning. Accordingly, I recommend no additional changes to the standard-offer contract in this regard.

## IV. <u>Conclusion</u>

In this proposal for decision, I make recommendations for the price elements for use in any 2024 standard-offer contracts for existing hydroelectric plants and prices for small and large farm methane projects. I also recommend that the standard-offer contract for farm methane projects be revised to reflect administrative deposit requirements consistent with other standard-offer plants.

Participants in this proceeding were provided the opportunity to comment on the prices and contract deposit changes recommended in this proposal for decision. Accordingly, this proposal for decision has not been circulated to the parties pursuant to 3 V.S.A. § 811 because the proposal for decision is not adverse to any party.

Mary Jo Krolewski

Mary Jo Krolewski
Hearing Officer

## V. **ORDER**

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

1. The findings, conclusions, and recommendations of the Hearing Officer are adopted.

2. 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.

3. 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.

4. Within 30 days of the issuance of this Order, the Standard Offer Facilitator is directed to file in this proceeding a revised standard-offer contract used for farm methane plants for Commission approval consistent with the determinations in this Order.

Dated at Montpelier, Vermont, this 7th day of June, 2024.

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| Edward McNamara | ) | PUBLIC UTILITY |
| | ) | |
| Margaret Cheney | ) | COMMISSION |
| | ) | |
| J. Riley Allen | ) | OF VERMONT |

OFFICE OF THE CLERK

Filed: June 7, 2024

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.*

PUC Case No. 24-0822-INV - SERVICE LIST

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