

STATE OF VERMONT  
PUBLIC UTILITY COMMISSION

Case No. 20-2935-INV

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Investigation to review the 2021 implementation of the standard-offer program	
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Order entered:

**PROPOSAL FOR DECISION - 2021 STANDARD-OFFER PROGRAM**

**I. INTRODUCTION**

In today's Proposal for Decision, I recommend that the Vermont Public Utility Commission ("Commission") use a request for proposals ("RFP") to award contracts to fill the available annual capacity under the standard-offer program for the Developer Block and Provider Block. In addition, I make recommendations for establishing price caps for use in the 2021 RFP.

**II. PROCEDURAL HISTORY AND BACKGROUND**

Procedural History

On October 9, 2020, the Commission opened this investigation to conduct a review of the 2021 implementation of the standard-offer program.<sup>1</sup>

On December 11, 2020, the Vermont Department of Public Service ("Department"), Green Mountain Power Corporation ("GMP"), and Allco Renewable Energy Limited and Allco Finance Limited (collectively, "Allco") filed comments.

On December 17, 2020, a workshop was conducted to discuss participants' comments and recommendations.

On January 14, 2021, the Department provided supplemental information and comments.

On January 21, 2021, Allco filed reply comments.

This proceeding has not used contested-case procedures, and all interested persons have been afforded the opportunity to participate through a workshop and written filings. Because this process was not a formal case, there were no parties and no deadlines for intervention. In this proposal for decision, I use the term "participants" to refer to the individuals and entities who participated in some manner in this process.

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<sup>1</sup> *Order Opening Investigation and Establishing Schedule*, Case No. 20-2935-INV, Order of 10/9/20.

## Background

Established in 2009, pursuant to 30 V.S.A. § 8005a, the standard-offer program promotes the rapid deployment of small renewable generation. The Commission has implemented the program through previous Orders in Dockets 7523, 7533, 7780, 7873, 7874, and 8817, Case No. 17-3935-INV, Case No. 18-2820-INV, and Case No. 19-4464-INV.

Under the program, Vermont distribution utilities are required to buy renewable power from an eligible generator. Program costs are distributed among Vermont utilities based on their *pro-rata* share of electric sales. The program is administered by a statewide purchasing agent (“Standard Offer Facilitator”) appointed by the Commission.

The standard-offer program was created with a 50 MW initial program capacity that was expanded to 127.5 MW in 2012. Eligible projects can be no larger than 2.2 MW in size and include the following technologies: solar; wind with a capacity of 100 kW or smaller (“small wind”); wind with a capacity greater than 100 kW up to 2.2 MW (“large wind”); farm methane; landfill methane; food waste anaerobic digestion; biomass; and hydroelectric. Eligible projects selected through a lottery received a standard-offer contract.

In 2012, statutory changes were made to the program that included an increase in the available program capacity, distributed annually as follows: 5 MW in 2013-2015; 7.5 MW in 2016-2018; and 10 MW available in 2019-2022. A specific portion of each year’s capacity is reserved for projects proposed by Vermont utilities and is referred to as the Provider Block, with the remainder referred to as the Developer Block. The 2012 changes also: (a) require allocation of available capacity among different technology categories; (b) allow market-based pricing methodology; and (c) require review of avoided-cost price determinations every year.

Since 2013, the Commission has issued an annual request for proposals to fill the available annual capacity under the program. Issued by the Standard Offer Facilitator, the annual request for proposals specifies annual program capacity, technology allocations, and the price caps. Under the request for proposals, the lowest-priced bids are awarded annual capacity. Farm methane projects remain outside the program cap (i.e., no restrictions on the number of projects that can participate in the program) and therefore do not have to participate in the annual request for proposals.

### **III. LEGAL STANDARD**

#### **Vermont Law**

Vermont law requires the Commission to use a market-based mechanism to obtain the amount of renewable energy required by the standard-offer program, provided that the mechanism is consistent with federal law and will support the goal of timely development at the lowest feasible cost.<sup>2</sup> However, Section 8005a(f)(2) requires the Commission to issue standard-offer contracts using the avoided cost of the Vermont composite electric utility system if the Commission finds either of the following: (i) the use of the pricing mechanism described in Section 8005a(f)(1) is inconsistent with applicable federal law; or (ii) the use of the pricing mechanism is reasonably likely to result in prices higher than the avoided cost.

Section 8005a(f)(2)(B) defines avoided cost as “the incremental cost to retail electricity providers of electric energy or capacity, or both, which, but for the purchase through the standard offer, such providers would obtain from distributed renewable generation that uses the same generation technology as the category of renewable energy for which the Commission is setting the price.”<sup>3</sup> The term avoided cost also includes the Commission’s consideration of each of the following:

- (i) The relevant cost data of the Vermont composite electric utility system.
- (ii) The terms of the contract, including the duration of the obligation.
- (iii) The availability, during the system’s daily and seasonal peak periods, of capacity or energy purchased through the standard offer, and the estimated savings from mitigating peak load.
- (iv) The relationship of the availability of energy or capacity purchased through the standard offer to the ability of the Vermont composite electric utility system or a portion thereof to avoid costs.
- (v) The costs or savings resulting from variations in line losses and other impacts to the transmission or distribution system from those that would have existed in the absence of purchases through the standard offer.
- (vi) The supply and cost characteristics of plants eligible to receive the standard offer.

#### **Federal Law**

The Public Utility Regulatory Policies Act of 1978 (“PURPA”) was enacted to encourage the development of small renewable power generation and cogeneration resources (collectively,

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<sup>2</sup> 30 V.S.A. § 8005a(f)(1).

<sup>3</sup> 30 V.S.A. § 8005a(f)(2)(B).

“qualifying facilities” or “QFs”). PURPA requires utilities to purchase electric energy or capacity, or both, from qualifying facilities of 80 MW or less in size. Responsibility for implementing PURPA’s provisions is shared between the Federal Energy Regulatory Commission (“FERC”) and the states. FERC sets requirements for PURPA purchases and provides general standards for determining purchase rates.<sup>4</sup> State public utility commissions determine the rates, terms, and conditions of the power purchase contracts for the utilities they regulate.

FERC regulations contain a mandatory purchase obligation on the part of utilities to buy “any energy and capacity which is made available from a qualifying facility”—which means that utilities must buy all of the energy and capacity offered by qualifying facilities.<sup>5</sup> In addition, utilities must purchase energy and capacity from qualifying facilities at a rate that “equals the avoided costs” of the utility.<sup>6</sup> Federal law defines avoided costs as “the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source.”<sup>7</sup>

FERC recently revised its regulations implementing PURPA.<sup>8</sup> The revised regulations permit states to establish avoided costs based on transparent and non-discriminatory competitive solicitations and identifies criteria for competitive solicitations.<sup>9</sup>

#### **IV. DISCUSSION**

##### **A. Consistency with Federal Law**

The Commission is required to use a market-based mechanism to obtain the required amount of renewable energy under the standard-offer program, provided that the mechanism is consistent with federal law.

As addressed further below, I recommend that the Commission conclude that the Vermont standard-offer program, with the use of a market-based mechanism, is PURPA

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<sup>4</sup> See 18 CFR § 292.304.

<sup>5</sup> 18 CFR § 292.303(a)(1).

<sup>6</sup> 18 CFR § 292.304(b)(2).

<sup>7</sup> See 18 CFR § 292.101(b)(6).

<sup>8</sup> See Order No. 872, 172 FERC ¶ 61,041 (July 29, 2020); 18 CFR § 292.

<sup>9</sup> See 18 CFR § 292.304(b)(8)(i)(1)(A)-(E).

compliant and thus consistent with federal law. Accordingly, I recommend the Commission issue an RFP to fill the annual capacity available under the program in 2021.

### Position of the Participants

The Department argues that FERC's revised PURPA regulations do not affirmatively address or reverse its precedent allowing states to have auxiliary, alternative programs in addition to PURPA; nor has any Court invalidated FERC's precedent on this point or Vermont's implementation of PURPA through Commission Rule 4.100. The Department maintains that FERC's revised PURPA regulations make explicit that a competitive process can be used to set avoided cost rates and uphold FERC's previous rulings that it is acceptable to have different rates for specific categories of resources required by state law. With respect to an RFP process to set rates, the Department contends that the standard-offer RFP meets the FERC criteria for a competitive solicitation.

Allco argues that the market-based mechanism under the standard-offer program is not consistent with federal law. Allco maintains that the Commission is within its authority to administratively set avoided-cost prices based upon a tiered-mechanism; however, if an auction is used to set avoided costs, then the auction must be open to all sources on a level playing field, including fossil fuels. Allco further maintains that FERC's revised PURPA regulations make clear that if an RFP is used under the standard-offer program, then the Provider Block (and the other technology categories) cannot separately exist, and all projects must compete on a level playing field. In addition, Allco asserts that FERC regulations do not alter the prohibition of caps on the amount of capacity of contracts, unless the utilities have no more capacity needs in the future, which is not the case in Vermont.

### Alternative Program to PURPA

In past decisions, the Commission concluded that the market-based mechanism is consistent with federal law because the standard-offer program is an alternative to PURPA that is permissible because Vermont has a separate PURPA compliant program — Commission Rule 4.100.<sup>10</sup> FERC has found that the standard-offer program complies with PURPA, given the

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<sup>10</sup> *Order Denying Motion to Stay*, Case No. 19-4466-INV; *Order of 6/11/20*; *Order Re 2020 Standard-Offer Program*, Case No. 19-4466-INV, *Order of 3/4/20 at 9*; *Order Re 2019 Standard-Offer Program*, Case No. 18-2820-INV, *Order of 1/16/19*; *2018 Programmatic Adjustments to the Standard-Offer Program*, Case No. 17-3935-INV, *Order of 3/16/18*; *Order Re Second Motions to Alter or Amend*, Docket 8817, *Order of 4/2/17*; *Order Re Motions to Alter or Amend and Motions to Reconsider*, Docket 8817, *Order of 3/29/17*; *Order Re 2017 Technology Allocation*

availability of Commission Rule 4.100 contracts for qualifying facilities.<sup>11</sup> Allco has not persuasively demonstrated, and no court has found, that the changes to Rule 4.100 adopted in 2014 violate PURPA. Under Commission Rule 4.100, Vermont provides all qualifying facilities the opportunity to enter into long-term, legally enforceable obligations at avoided-cost rates to the full extent required by federal law.<sup>12</sup> Thus, the Commission Rule 4.100 program satisfies the must-take obligation and pricing requirements of PURPA.

The decisions in *Winding Creek Solar* do not alter the conclusion that an alternative program to PURPA is permissible because Vermont has a PURPA compliant program. Unlike the California program at issue in *Winding Creek Solar*, the PURPA program offered under Commission Rule 4.100 does not suffer from the defects that the District Court and Ninth Circuit Court of Appeals identified in California's Standard Contract program (California's version of Commission Rule 4.100 program).<sup>13</sup> The courts found that California's program was defective because it capped the amount of energy utilities must purchase from qualifying facilities and because the program did not set purchase rates at avoided cost. In contrast, Commission Rule 4.100 does not impermissibly limit the amount of capacity utilities must purchase from qualifying facilities and all purchases must be at a utility's avoided cost.<sup>14</sup>

Further, the *Winding Creek Solar* decisions did not fully address FERC's regulatory interpretation that an alternative program may exist if a state otherwise satisfies its obligations to qualifying facilities under PURPA. The District Court accepted as true that the California Public Utilities Commission "is free to have additional programs that are not PURPA-compliant, including a non-compliant Re-MAT Program."<sup>15</sup> The Ninth Circuit expressly stated that it need not decide whether to defer to FERC's conclusion that a state can have non-compliant PURPA program if the state has a compliant program because California did not offer any PURPA

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*and Price Caps for the Standard-Offer Program*, Docket 8817, Order of 3/2/17; *Order Re Standard Offer Program Technology Allocation*, Dockets 7873 & 7874, Order of 2/12/16; *Order Re 2015 Technology Allocation*, Dockets 7873 & 7874, Order of 2/17/15; *Order Re Technology Allocation Issues*, Dockets 7873 & 7874, Order of 2/7/14; and *Order Re Establishment of Standard-Offer Prices and Programmatic Changes to the Standard-Offer Program*, Dockets 7873 and 7874, Order of 3/1/13.

<sup>11</sup> *Otter Creek Solar, LLC*, 146 FERC ¶ 61192, 2014 WL 1097401 (March 20, 2014).

<sup>12</sup> Commission Rule 4.104(A) ("An Interconnecting Utility must purchase the generation output of a Qualifying Facility, to the extent required by 18 C.F.R. § 292.303(a).").

<sup>13</sup> *Winding Creek Solar LLC v. Peterman*, 932 F.3d 861 (9th Cir. 2019); *Winding Creek Solar LLC v. Peevey*, 293 F.Supp.3d 980 (N.D. Cal. 2017).

<sup>14</sup> See Commission Rule 4.104 (establishing an obligation to purchase all generation output from qualifying facilities at avoided cost).

<sup>15</sup> *Winding Creek Solar v. Peevey*, 293 F.Supp.3d at 990.

compliant programs.<sup>16</sup> As discussed above, the opposite is true of Vermont because Commission Rule 4.100 complies with PURPA.

### Tiered Procurements and Pricing

Even if a court were to invalidate FERC's previous rulings that an alternative program to PURPA is permissible, the Vermont standard-offer program is still consistent with federal law. As addressed below, the technology-specific procurements and the competitive solicitation used under the standard-offer program satisfy the must-take obligation and pricing requirements under PURPA.

As required by Vermont statute, the standard-offer program requires distribution utilities to purchase specific amounts of capacity (specific technologies).<sup>17</sup> FERC regulations implementing PURPA neither require nor prohibit states from establishing tiered procurement and pricing.<sup>18</sup> "Once such tiered generation procurement requirements have been established by a state, if a QF qualifies for a particular generation procurement tier, it is reasonable to assume that the mandatory QF purchase will displace resources otherwise in that tier; therefore, the rates for that tier are in fact the cost avoided by the purchasing utility when it instead purchases from that QF."<sup>19</sup> Federal courts have upheld multi-tiered pricing, holding "that where a utility uses energy from a QF to meet a state [renewable portfolio standard], the avoided cost must be based on the sources that the utility could rely upon to meet the [renewable portfolio standard]."<sup>20</sup>

The limit on the amount of capacity that may participate in the standard-offer program cap is permissible because it does not violate the must-take obligation under PURPA or limit the obligation of utilities to purchase all output from qualifying facilities. The standard-offer program is a limited, tiered pricing program for small renewable energy plants that was enacted to supplement and not supplant the rights of qualifying facilities under PURPA.<sup>21</sup> The standard-offer program does not relieve Vermont utilities of their general obligation to buy all of the energy and capacity offered by a qualifying facility. The standard-offer program capacity limits

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<sup>16</sup> *Winding Creek Solar v. Peterman*, 932 F.3d at 865-66.

<sup>17</sup> 30 V.S.A. § 8005a(c)(2).

<sup>18</sup> See Order No. 872-A, 173 FERC ¶ 61,158 at Paragraph 72.

<sup>19</sup> Order No. 872-A, 173 FERC ¶ 61,158 at Paragraph 72.

<sup>20</sup> *Californians for Renewable Energy v. California Public Utilities Commission*, 922, 937 F.3d 929 (2019).

<sup>21</sup> See 30 V.S.A. § 8005a(c) (establishing a cumulative capacity limit of 127.5 MW for plants receiving special, technology-specific avoided-cost rates through the standard-offer program).

are permissible because a qualifying facility has access to an uncapped program under Commission Rule 4.100.

Moreover, the statute's annual capacity limits and requirements for technological diversity are integral to the function of the standard-offer program and set a limit on the additional costs that will be paid by all Vermont ratepayers. Without those limits the statute would not exist because the Vermont Legislature did not intend to create an obligation to pay preferential, technology-specific rates to an unlimited number of qualifying facilities. These limits are consistent with federal law because (a) Vermont is permitted to have a tiered pricing structure where the price available to plants participating in the standard offer program reflects the specific cost avoided by the utilities (the obligation to purchase from small renewable generators) and (b) other qualifying facilities are still entitled to sell all of their output at the utility's avoided cost as required by PURPA.

#### PURPA Competitive Solicitation Price

FERC's regulations implementing PURPA allow the use of a competitive solicitation process to establish the avoided cost price available to qualifying facilities, provided that the competitive solicitation process is conducted in a transparent and non-discriminatory manner including five identified criteria that competitive solicitations must meet.<sup>22</sup>

I recommend the Commission issue an RFP to award contracts for the 2021 standard-offer program consistent with the FERC criteria for competitive solicitations. I discuss below how the 2021 RFP can be conducted to meet the FERC criteria and thus consistent with federal law.

First, FERC regulations require that the solicitation process be an open and transparent process that includes providing equally to all potential bidders substantial and meaningful information regarding transmission constraints, levels of congestion, and interconnections, subject to appropriate confidentiality safeguards.<sup>23</sup> Vermont utilities currently provide a significant amount of publicly available information with respect to transmission and distribution level constraints, levels of congestion, and interconnection issues on the Vermont electric system that could be accessed by potential bidders in the 2021 RFP. The Vermont Electric Power

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<sup>22</sup> 18 CFR § 292.304(b)(8)(i)(A)-(E).

<sup>23</sup> 18 CFR § 292.304(b)(8)(i)(A).



Company (“VELCO”)<sup>24</sup> and the distribution utilities, working through the Vermont System Planning Committee (“VSPC”) process, report progress on identified reliability deficiencies at least annually to the Commission. In the Vermont Long-Range Transmission Plan, published every three years, VELCO provides details on the status of any transmission and sub-transmission reliability deficiencies. In addition, the VSPC maintains a webpage that provides information on the Sheffield-Highgate Export Interface (“SHEI”) constraints in northern Vermont. Past standard-offer RFPs have provided notice to potential bidders of the SHEI constraints. In addition, for a significant portion of the state, Green Mountain Power’s Solar Map provides distributed generation circuit capacity per substation and identifies transmission ground-fault overvoltage circuits.<sup>25</sup> For the 2021 RFP, I recommend that the Commission’s request for proposals identify and provide means of access to all these information resources that help potential bidders understand constraints and deficiencies on the Vermont electric system.

Second, FERC regulations require that solicitations be open to all sources, to satisfy that electric utility’s capacity needs, taking into account the required operating characteristics of the needed capacity.<sup>26</sup> The 2021 standard-offer solicitation will be based on the operating characteristics of the needed capacity identified in the Vermont standard-offer statute. The statute specifies annual renewable capacity amounts for the Developer and Provider Blocks and requirements for technological diversity.<sup>27</sup> These renewable generation amounts and diversity requirements represent the utility’s capacity needs. The 2021 RFP will be open to all sources that satisfy these capacity needs.

Third, FERC regulations require that solicitations be conducted at regular intervals.<sup>28</sup> Vermont statute requires the Commission to increase the number of standard offers in annual amounts to new standard offer plants until a cumulative plant capacity of 127.5 MW is reached.<sup>29</sup> Since 2013, the Commission has issued annual RFPs to fulfill these requirements. The Commission expects to complete this process in 2022, when Vermont utilities’ capacity needs under the standard-offer program are satisfied.

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<sup>24</sup> VELCO is the owner of Vermont’s electric transmission system.

<sup>25</sup> See <https://gmp.maps.arcgis.com/apps/webappviewer/index.html?id=4eac2b58c4c4820b24c408a95ee8956>.

<sup>26</sup> 18 CFR § 292.304(b)(8)(i)(B).

<sup>27</sup> 30 V.S.A. § 8005a(c).

<sup>28</sup> 18 CFR § 292.304(b)(8)(i)(C).

<sup>29</sup> 30 V.S.A. § 8005a(c)(1).

Fourth, FERC regulations require solicitations to be subject to oversight by an independent administrator.<sup>30</sup> The annual standard-offer RFPs are administered and overseen by the Commission and the Standard Offer Facilitator. Vermont distribution utilities are required to buy renewable power contracted through the RFP, but do not participate in the RFP administration or selection process.

Fifth, FERC regulations require that solicitations be certified as fulfilling the above criteria by the relevant state regulatory authority or nonregulated electric utility through a post-solicitation report.<sup>31</sup> FERC further clarified that the post-solicitation report: “(1) identifies the winning bidders; (2) includes a copy of any reports issued by the independent evaluator; and (3) demonstrates that the solicitation program was implemented without undue preference for the interests of the purchasing utility or its affiliates.”<sup>32</sup> Under the annual RFP process, after the deadline for bid submissions, the Standard Offer Facilitator submits a post-solicitation report to the Commission that is made available for public inspection. The Commission approves the RFP results and issues standard-offer contracts based on the information presented in that report. Winning bids in the annual RFP are selected solely based on price without preference for the interests of the purchasing utilities or their affiliates. Vermont distribution utilities participating in the standard-offer program collectively share program costs and are required to buy renewable power from the winning RFP bids based on their *pro-rata* share of electric sales. While the Vermont standard-offer statute requires a Provider Block in addition to the Developer Block, Vermont utilities compete against each other based on price for capacity awarded in the Provider Block.<sup>33</sup>

Further, the Vermont standard-offer statute requires distribution utilities to purchase tiered generation procurements (by technology).<sup>34</sup> Like past standard-offer RFPs and consistent with statute, the 2021 RFP will include tiered procurement (and thus tiered pricing). FERC regulations implementing PURPA neither require nor prohibit states from establishing tiered procurement and pricing.<sup>35</sup> Accordingly, it follows that if FERC regulations allow the use of a

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<sup>30</sup> 18 CFR § 292.304(b)(8)(i)(D).

<sup>31</sup> 18 CFR § 292.304(b)(8)(i)(E).

<sup>32</sup> See Order No. 872, 172 FERC ¶ 61,041 at Paragraph 432.

<sup>33</sup> 30 V.S.A. § 8005a(c)(1)(B).

<sup>34</sup> 30 V.S.A. § 8005a(c)(2).

<sup>35</sup> See Order No. 872-A, 173 FERC ¶ 61,158 at Paragraph 72.

price determined pursuant to a competitive solicitation process, it does not prohibit tiered pricing determined through a competitive solicitation.

## **B. RFP Price Caps**

The Commission may take steps to ensure that market-based mechanism implements the statutory goal of timely development at the lowest feasible cost.<sup>36</sup> Specifically, the Commission uses price caps to ensure that the use of the market-based mechanism is not “reasonably likely to result in prices higher than the prices that would apply” under an administratively-determined, category-specific avoided cost of the Vermont composite electric utility system.<sup>37</sup>

With consideration of these statutory directives, I recommend that the Commission establish the following price caps for each of the categories of renewable energy that will be acquired in the RFP.

### Solar Price Cap

As discussed below, I recommend that the Commission establish a solar price cap of \$0.104 per kWh for use in the 2021 RFP. This would apply to both the Developer Block and Provider Blocks.

The Department recommends that the solar price cap be set at 115% of the weighted average of all 2020 RFP bids that were awarded contracts in the Price-Competitive Developer Block or placed in the Reserve Group. The Department notes that the price caps used in the 2018, 2019, and 2020 RFPs were the output of a detailed cash-flow model last updated in 2018, and that the model included a wide range of assumptions including the inflation rate, tax rate, depreciation expenses, and installation costs. Given the mature stage of the standard-offer program, the several years of program history, and the robust participation in the annual RFP, the Department contends that a bottom-up, time-intensive update of the model and its assumptions is not warranted at this time, nor is it the only valid approach. The Department maintains that using RFP results from previous years is also indicative of the market and the cost to build.

In the Price-Competitive Developer Block, the 2020 RFP yielded twenty proposals for a total sum of 42.65 MW, all for solar projects. The proposed prices ranged from 8.78 cents per kWh up to 13 cents per kWh. Seven projects totaling 14.05 MW were awarded contracts, with

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<sup>36</sup> 30 V.S.A. § 8005a(f)(1).

<sup>37</sup> 30 V.S.A. § 8005a(f)(2)(A)(ii).

the highest contract price at 9.08 cents per kWh. An additional three projects, totaling 6.6 MW, were placed in the Reserve Group, with the highest bid price at 9.79 cents per kWh. The weighted average price of the seven Price-Competitive Developer Block projects awarded a contract, and the three Reserve Group projects, was 9.05 cents per kWh. Adding a 15% margin would result in a price cap of 10.41 cents per kWh for the 2021 RFP.

The Department recommends a 15% margin to account for changing factors, such as siting costs, that may result in the average price of RFP bids in any given year being higher or lower. The Department also maintains that the 15% margin provides a generous capture of these changing factors. The Department states that the cost of solar projects has generally been decreasing year over year, but also notes that the phaseout of the Investment Tax Credit (“ITC”) may increase project costs.<sup>38</sup> Under recent legislation, the ITC will remain at 26% through 2022, then drop to 22% in 2023, and to 10% in 2024.<sup>39</sup> The Department contends that that a 15% margin is likely greater than needed due to the extension of the ITC but anticipates that sufficient competition in the upcoming RFP will offset any excess in the margin.

GMP recommends that the solar price cap be established annually based upon the results of recent previous auctions and include the 15% margin adjustment recommended by the Department. GMP maintains that using RFP results as an indicator of what a project would need to charge to ensure financial viability is a reasonable and fair way to review the solar price cap on an annual basis. GMP further contend that pairing the RFP results with the proposed adjustment factor allows for unforeseen changes in the market that might increase the economic requirements for projects to achieve commercial operation.

Allco recommends a solar price cap of \$0.130 per kWh. This price cap is based on the output of a cash-flow model analysis last conducted by the Department in 2018.

Based on a review of past RFP results and the participants’ recommendations, I recommend the Commission establish a solar price cap of \$0.104 per kWh for use in the 2021 RFP. A price cap based on the previous year RFP winning or reserve proposals, with a 15% margin adjustment, represents a reasonable and balanced approach for establishing the price cap.

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<sup>38</sup> See Lawrence Berkeley National Laboratory, Utility-Scale Solar Data Update: 2020 Edition (November 2020) at slide 20 (funded by the U.S. Department of Energy, Solar Energy Technologies Office), *available at* [https://emp.lbl.gov/sites/default/files/2020\\_utility-scale\\_solar\\_data\\_update.pdf](https://emp.lbl.gov/sites/default/files/2020_utility-scale_solar_data_update.pdf).

<sup>39</sup> See H.R. 133: Consolidated Appropriations Act, 2021 [Including Coronavirus Stimulus & Relief], Pub. L. No. 116-260, H.R. 133, 116th Cong. (2020).

Ten projects eligible for contracts were bid into the 2020 RFP below the recommended solar price cap, indicating that it represents a price level that should encourage sufficient developer participation at competitively priced bids. Further, the price cap balances the general trend in declining solar project costs with the recognition that some project factors may cause project costs to vary from year to year, including the phaseout of the ITC.

### Remaining Price Caps

As discussed below, I recommend that the Commission retain the previously established standard-offer price caps for the remaining technology categories: biomass, landfill gas, food waste anaerobic digestion, hydroelectric, small wind, and large wind.

The 2020 RFP yielded five proposals totaling 575 kW in the Technology Diversity Developer Block. Four of the proposals, totaling 175 kW, were for small wind at the RFP price cap, and one proposal was for a food waste anaerobic digestion project, 400 kW in size, at a bid price of 20.7 cents per kWh. In the 2020 RFP, all bids in the Technology Diversity Developer Block were awarded contracts. Only one project of the several projects that have been awarded contracts in past RFPs in the Technology Diversity Developer Block has achieved commissioning to date. There are currently 15 projects, with a combined capacity of approximately 3.7 MW, from previous RFPs (not including 2020) that have been awarded contracts but are not yet commissioned.

The Department contends that the bids received in the 2020 RFP, all of which were within 1% of the price caps, show that there is developer interest with the previously established price cap levels and that the goal of technology diversity is being achieved in the RFP process. As such, the Department recommends no changes to the price caps used in the 2020 RFP.

GMP supports the goal of technology diversity in the standard-offer program. GMP notes that few non-solar projects have been completed in recent years so it is difficult to know whether these projects could be developed at prices lower than the previously established RFP price caps. Given this uncertainty, GMP recommends no change to the RFP price caps for the remaining technologies beyond solar.

Based on a review of past RFP results and the participants' recommendations, I recommend no changes to the price caps established in 2020 for the Technology Diversity Developer Block. The 2020 RFP results indicate that there is developer interest in building

projects at the previously established price caps and that the price caps are achieving the technology diversity goals of the program.

### Summary of RFP Price Caps

In summary, I recommend that the Commission establish the following price caps for the 2021 RFP:

- Biomass: \$0.125 per kWh (levelized over 20 years)
- Landfill Gas: \$0.090 per kWh (levelized over 15 years)
- Wind > 100 kW: \$0.116 per kWh (fixed for 20 years)
- Wind ≤ 100 kW: \$0.258 per kWh (fixed for 20 years)
- New Hydroelectric: \$0.130 per kWh (fixed for 20 years)
- Food Waste Anaerobic Digestion: \$0.208 per kWh (fixed for 20 years)
- Solar: \$0.104 per kWh (fixed for 25 years)

### **C. Farm Methane Prices**

Farm methane projects remain outside the standard-offer programmatic cap. No participant provided comments on the prices for these projects. I recommend that the Commission adopt the 2020 prices for use in 2021. 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.

### **D. RFP Timeline**

I recommend that the Commission direct the Standard Offer Facilitator to issue an RFP shortly after the Commission's determination in this proceeding and that bid proposals be due no earlier than two months from the RFP release date. The goal of the recommended schedule is to provide RFP bidders with sufficient time to prepare proposals reflective of the Commission's determinations. Participants are requested to file comments on the recommended RFP schedule.

In 2018, the Commission established a mechanism for the allocation of available capacity for the remainder of the standard-offer program, pursuant to Section 8005a(c)(2), which will be

employed in the 2021 RFP.<sup>40</sup> The Commission adopted a technology allocation under which the Developer Block included a Price-Competitive Developer Block that was available to projects of any technology category, awarded on bid price. The remainder of the Developer Block capacity was allocated to the Technology Diversity Developer Block, which was allocated on an equal basis to non-solar technology categories (except landfill gas), awarded on bid price within each category.

#### **V. CONCLUSION**

In this proposal for decision, I recommend that the Commission use an RFP to solicit the annual capacity required under the standard-offer program. I am also recommending the Commission establish price caps for use in the RFP.

I am circulating this proposal for decision to the participants for their review and comment.



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Mary Jo Krolewski  
Hearing Officer

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<sup>40</sup> Section 8005a(c)(2) requires the Commission to allocate the 127.5 MW cumulative capacity of the standard-offer program among different categories of renewable energy technologies. *See 2018 Programmatic Adjustments to the Standard-Offer Program*, Case No. 17-3935-INV, Order of 3/16/18.

**VI. ORDER**

IT IS HEREBY ORDERED, ADJUDGED, AND DECREED by the Public Utility Commission (“Commission”) of the State of Vermont that:

1. The conclusions and recommendations of the Hearing Officer are adopted.
2. The Commission will direct the Standard Offer Facilitator to procure the amount of capacity required by 30 VSA § 8005a(c) using a request for proposals consistent with the requirements in this Order.
3. The Commission will direct the Standard Offer Facilitator to issue a request for proposals to solicit standard-offer projects within 30 days of this Order. Bid proposals will be due no earlier than two months from the issue of the request for proposals.
4. Effective for any standard-offer contract executed after March 1, 2021, pursuant to 30 V.S.A. § 8005a(f)(2), the following avoided costs 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 \_\_\_\_\_ day of \_\_\_\_\_, 2021.

_____ )	
Anthony Z. Roisman )	PUBLIC UTILITY
)	
)	
_____ )	COMMISSION
Margaret Cheney )	
)	
)	OF VERMONT
_____ )	
Sarah Hofmann )	

OFFICE OF THE CLERK

Filed:

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 thirty 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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