



68 Merchants Row
Rutland, VT 05701

Phone: (802) 342-2879

Andrew Quint
Power and Markets Analyst
Andrew.Quint@greenmountainpower.com

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Filed in ePUC

Ms. Holly Anderson, Clerk
Vermont Public Utilities Commission
112 State Street
Montpelier, VT 05620-2601

Re: Investigation to review the 2022 implementation of the standard-offer program
Case No. 21-4085-INV

Dear Ms. Anderson:

Green Mountain Power appreciates the opportunity to comment on the issues set forth in the Public Utility Commission's ("PUC") October 4, 2021 Order in this case regarding the 2022 standard-offer Program.

The PUC requested comments on the existing established price caps under the standard-offer program and asked for recommendations for any changes or updates. For the 2021 RFP the PUC order stated that '...the solar price cap was based on the previous year RFP winning or reserve proposals, with a 15% margin adjustment'. The margin adjustment was meant to account for various factors such as changes in inflation, siting costs, and the federal Investment Tax Credit that could affect the ability of projects to reach commercial operation. This resulted in a price cap 10.4 cents/kWh, which attracted 17 bids for a total of 37,400 kW of nameplate capacity in the 2021 RFP and featured prices ranging from 8.48 cents/kWh to 9.90 cents/kWh. Based on these results it would appear that the price cap was adequate to support a reasonable volume of cost competitive offers. We believe that the recent pricing changes in the short-term energy market do not warrant reconsideration of this approach.

While Locational Marginal Prices ("LMP") for energy have risen in 2021, we see this as a shorter-term phenomenon driven by supply chain disruptions related to COVID-19. We also expect that this spike in natural gas prices and other factors will dissipate over the next 18 to 24 months; well before the delivery and procurement periods for projects participating in the upcoming Standard Offer procurement. Supporting this expectation, we note that energy market futures for calendar years 2023 through 2027 show moderating energy prices, which, when coupled with ISO-New England's ("ISO-NE") Forward Capacity Auctions #14 and #15 both clearing well below \$3.00/kW-month, are strong indicators that avoided costs will remain stable for at least the next several years. In addition, the rapid increase in solar output across New

England has tended to suppress energy prices during the peak hours for solar generation, thereby lowering the value realized for the benefit of our customers from these projects as can be seen in Figure 1 below. This analysis looks at average hourly energy prices between hours ending 8 and 16, which are generally when solar production occurs, versus the average all-hours or around the clock (“ATC”) average LMP at the Vermont Zone, where the value from behind-the-meter generation is realized for the Vermont Distribution Utilities. These values are not production weighted, but serve to show that the premium for generation during these hours has dropped from over 8% in 2013 to 2% or less in recent years.

Figure 1 - Energy Prices at Vermont Zone

Year	Ave DA LMP HE 8 - 16	Ave DA LMP (7x24)	HE 8 - 16 LMP as % of 7x24 LMP	Notes
2013	\$59.72	\$54.91	108.8%	
2014	\$68.99	\$63.81	108.1%	
2015	\$44.96	\$41.58	108.1%	
2016	\$31.87	\$29.66	107.4%	
2017	\$34.68	\$33.05	104.9%	
2018	\$45.45	\$43.71	104.0%	
2019	\$31.34	\$30.67	102.2%	
2020	\$23.08	\$22.76	101.4%	
2021	\$43.00	\$42.30	101.6%	Through 10/31/21

The results of ISO-NE’s forward capacity auctions are shown below in Figure 2. This data is available at <https://www.iso-ne.com/isoexpress/web/reports/auctions/-/tree/fca-results>.

Figure 2 - Capacity Prices

Auction	Start Date	End Date	Rest of Pool
FCA 1	6/1/2010	5/31/2011	\$4.50
FCA 2	6/1/2011	5/31/2012	\$3.60
FCA 3	6/1/2012	5/31/2013	\$2.95
FCA 4	6/1/2013	5/31/2014	\$2.95
FCA 5	6/1/2014	5/31/2015	\$3.21
FCA 6	6/1/2015	5/31/2016	\$3.43
FCA 7	6/1/2016	5/31/2017	\$3.15
FCA 8	6/1/2017	5/31/2018	\$7.03
FCA 9	6/1/2018	5/31/2019	\$9.55
FCA 10	6/1/2019	5/31/2020	\$7.03
FCA 11	6/1/2020	5/31/2021	\$5.30
FCA 12	6/1/2021	5/31/2022	\$4.63
FCA 13	6/1/2022	5/31/2023	\$3.80
FCA 14	6/1/2023	5/31/2024	\$2.00
FCA 15	6/1/2024	5/31/2025	\$2.61

This context of declines in the wholesale market value of output from solar photovoltaic projects informs our opinion regarding the continued need to apply the methodology the Commission used this past year to update standard-offer prices for this technology.

Figure 3 below details the calculation of what the price cap for solar PV RFP responses would be based on GMP’s understanding of the methodology used for the 2021 RFP. The weighted average of the award and reserve group prices would be 8.54 cents/kWh, which would be adjusted by 15% or 1.28 cents/kWh, a price that exceeds 15 of the 17 responses in the 2021 RFP.

Figure 3 - Calculation of Solar Price Cap Using Current Method

Project Name	Award Group	Cents/kWh	MW Capacity
Olde Farmhouse Solar	Price Competitive Block	0.0848	2.200
Boardman Hill Solar	Price Competitive Block	0.0849	2.200
Halladay Solar	Price Competitive Block	0.0857	2.200
Bullfron Hollow Solar	Reserve Group	0.0857	2.200
Midway Ave Solar	Reserve Group	0.0857	2.200
Berlin Dog River Solar	Reserve Group	0.0858	2.200
Weighted Average		0.0854	
15% Adjustment		0.0128	
Adjusted Price Cap		0.0982	

2021 Proposals Above and Below Calculated Cap

Below	15
Above	2

Pairing the RFP results with the proposed adjustment factor allows for unforeseen changes to the market that might increase the economic requirements for projects to achieve commercial operation. We believe that this method of updating the price cap provides an easy, transparent annual reset and a price based upon actual auction result experience. Accordingly, we support the continued use of this methodology for the 2022 RFP.

GMP strongly supports the goal of technology diversity in the standard-offer program, and notes that all of the 2021 RFP bids for technologies other than Solar PV featured prices that were at or near the technology-specific avoided cost caps. This indicates an apparent lack of supplier competition and market innovation to lower costs. 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 price caps. Given this uncertainty, GMP continues to recommend that the price

caps for all technologies other than solar PV remain unchanged. If more significant numbers of projects featuring other technologies begin to achieve commercial operation while the program is available, it may be appropriate to revisit the price caps for these technologies for future RFPs.

If you have any questions please feel free to contact me at (802) 342-2879 or at Andrew.Quint@GreenMountainPower.Com.

Sincerely,

A handwritten signature in blue ink that reads "Andrew Quint". The signature is written in a cursive style with a prominent "Q" and "I".

Andrew Quint