State of Rhode Island Public Utilities Commission

In Re: 2024-2026 Renewable Energy Growth Program Classes, Ceiling Prices, and Capacity Targets and 2024-2026 Renewable Energy Growth Program Tariffs and Solicitation and Enrollment Rules

Docket No. 23-44-REG

Pre-Filed Testimony of

Ian Springsteel

March 1, 2024

I. Introduction and Qualifications

Q. Please state your name and business address.

A. My name is Ian Springsteel and my business address is 33 Union Avenue, Sudbury, MA 01776.

Q. Describe your education and professional background.

A. I have worked in the field of energy policy, energy program management and utility management for approximately 19 years. Prior to joining Gridwealth this past January, I was employed by National Grid Service Co. for nearly 14 years, during which time I sat on the Distributed Generation Board ("DG Board") for the company in its *ex officio* position for approximately six years, until the sale of Narragansett Electric Co. to PPL Energy was finalized in June of 2022. I led the initial development of tariffs and implementation of the RE Growth Program when it was established, and testified on many aspects of and changes to the RE Growth program before the State of Rhode Island Public Utilities Commission ("PUC") for approximately eight years, from 2015 to 2022, as well as on other matters for National Grid. I was also involved with solar and renewable energy policy in other states, mainly Massachusetts and New York, during those years, and had experience modeling solar generation and costs, examining the response of the solar development industry to various programs, and integrating solar facilities into utility processes for enrollment, interconnection and payment, along with many colleagues at National Grid.

Prior to National Grid I briefly ran a clean energy consulting firm called Green Edge Solutions, working for a variety of public sector, private manufacturing and finance

clients. Prior to that, I was a senior program manager at the Massachusetts Technology Collaborative, which managed the Mass. Renewable Energy Trust, and was the predecessor to the Mass. Clean Energy Center. I managed a variety of programs at MTC, including Renewable Energy Certificate disposition, an early-stage manufacturer loan program, and initial development of the Mass. Wind Technology Testing Center. Prior to that, I attended the Harvard Kennedy School of Government, from which I received a Master's of Public Administration in 2005. Before that I worked as a journalist and consultant covering business, finance and economic issues. I also hold a Bachelor of Arts from Boston University in Comparative Political Economy.

Q. By whom are you employed and in what capacity?

A. I am the Vice President of Policy and Regulatory Affairs of MassAmerican Energy LLC d/b/a Gridwealth Development ("Gridwealth").

Q. Describe Gridwealth's business.

A. Gridwealth is a full spectrum renewable energy developer, financier and long-term operator of Distributed Energy Resources. Gridwealth's target market consists of commercial and industrial sites for solar photovoltaic and battery electricity storage systems. The Company was founded by career renewable energy and finance professionals with collective experience in excess of 50 years deploying, owning, operating and maintaining renewably-powered electric generating facilities. Gridwealth has over 60MW DC of distributed generation solar projects under development in Rhode Island. Gridwealth is also a service provider for Independent Power Producers active in the Rhode Island market. Gridwealth originates and manages offtake relationships,

undertakes billing and collection services and runs monitoring, operations and maintenance for systems owned by third parties.

Q. Why did Gridwealth intervene in this docket?

A. Many of Gridswealth's RI projects intend to participate in Rhode Island's Renewable Energy Growth ("REG") Program. Gridwealth's forward looking market plans include significant additional development of distributed generation solar projects, which have in part been planned and targeted in reliance on the forthcoming REG Program. These facilities each create jobs, pay taxes, support local real estate and contribute to additional electricity supply resulting in lower costs for all ratepayers.

Gridwealth's interests in the next three program years is directly affected by this proceeding. Among other specific interests, Gridwealth has interest in:

- the tariff classes, sizes and rates proposed by Rhode Island Energy ("RIE") and the DG Board, which Gridwealth is relying on to model, finance and develop its projects;
- maintaining existing REG program rules that Gridwealth is relying on to plan development of its projects;
- ensuring the proceeding unfolds in a timely manner, as delays in the program approval could cause delays in financialization of Gridwealth's ongoing projects, which would prevent Gridwealth from financing and installing and meeting targets for projects projected to operate by year-end;
- the value of generation output sold under REG tariffs over the next three program years is directly affected by this proceeding.

Q. What is your understanding of RIE's proposal in this docket?

A. My understanding of the proposed MW Allocation Plan is that the DG Board sought analysis from the consultants to the Rhode Island Office of Energy Resources ("OER"), which is Sustainable Energy Advantage ("SEA"), resulting in recommendations for the MW Plan. This plan is shown on page 13 of the DG Board's submission to the PUC, and page 57 of SEA's testimony in that same submission. I reproduce it here below for ease of reference.

Renewable Energy Class	Size Bin (DC)	Final Recommended Annual Allocation (MW)		
		2024	2025	2026
Small Solar	<=25 kW	9	10	12
Medium Solar	>25-250 kW	5	7	9
Commercial Solar I	>250-500 kW	7.5	9.5	11.5
Commercial Solar I CRDG	>250-500 kW	0.5	0.5	0.5
Commercial Solar II	>500 kW-1 MW	10.5	11.5	12.5
Commercial Solar II CRDG	>500 kW-1 MW	1	1	1
Large Solar I	1-<5 MW	15	20	25
Large Solar I CRDG	1-<5 MW	5	5	5
Large Solar II	5-9.99 MW	35	35	35
Large Solar III	10-14.99 MW	15	30	30
Large Solar IV	15-38.99 MW	0	0	40
Wind	<=5 MW	3	3	3
Wind CRDG				
Small Scale Hydro	<=5 MW	1	1	1
Anaerobic Digestion (AD)				
Total	**All**	**107.5**	**133.5**	**185.5**

The amendments to the RE Growth program enacted in June 2023, 2023 R.I. Pub. Laws §§300-301, allowed the DG Board and OER to recommend up to 300 MW per year of available capacity in order to significantly increase the pace and scale of renewable energy, and specifically solar, generation development in Rhode Island in the near future.

The statute also calls for 30 MW to be "reserved" for projects under 1 MW-dc in capacity, which the proposed plan exceeds just slightly in each of the years.

Q. Do you have any concerns about the MW Plan as laid out above in the table?

A. Yes, I do. Specifically, the allocation to the Medium, Commercial I and Commercial II solar classes start at 5, 7.5, and 10.5 MW respectively in 2024 and increase to 9, 11.5, and 12.5 MW in 2026. These classes were allocated capacity of 5, 4 and 8 MWs in 2022 and 2023, when the program sought far less capacity overall.

These classes are also among the most well-participated in prior years, while I oversaw the program at National Grid. They are also faster and less expensive on a $/kw basis to interconnect than larger scale (>1 MW) projects, as noted in SEA's testimony, at page 60 lines 4-17.

In short, I do not believe the proposed allocation plan enables the purpose and intent of the 2023 legislation, neither does it allow for the substantial and proportional scaling of capacity from systems in these classes compared to the proposed plan totals by year and the allowed total of 300 MW per year, nor is it adequate to meet the customer demand for these size of systems in the coming years. Finally, I don't believe the current Benefit Cost Analysis for the program portrays an accurate picture of benefits, especially of the BCA ratios of these project classes, and they should be revised with results from the updated avoided-cost projections recently released.

Q. Why do you believe that the proposed MW Plan does not enable the purpose and intent of the 2023 Chapter 300 legislation?

A. I believe the plan fails in this regard as it does not expand sufficiently the ability of developers like Gridwealth to promote installation of customer-sited systems, does not

maximize the potential to reduce siting and environmental impacts with the available megawatts each year, and does not emphasize development of systems that reduce both interconnection impacts and costs. As the statute states:

> 39-26.4-1. Purpose.
>
> The purpose of this chapter is to facilitate and promote installation of customer-sited, grid-connected generation of renewable energy; to support and encourage customer development of renewable generation systems; to reduce environmental and siting impacts; to reduce carbon emissions that contribute to climate change by encouraging the local siting of renewable energy projects; to diversify the state's energy generation sources; to stimulate economic development; to improve distribution system resilience and reliability; and to reduce distribution system costs.

Solar facilities in the range of 25kW to 999kW are those most possible and likely to be sited on the roof of a commercial or industrial building, rather than requiring open space or forested locations as do most projects sized greater than 1 MW. Further, these sizes of solar arrays generally cause fewer issues on the distribution grid, can be located in areas with greater day-time load, and do not require review and study by ISO-NE and the affected transmission owner and operator if they are less than 1 MW-AC. These three factors together allow 25-999 kW-DC systems to move more quickly through interconnection, with less cost, and fewer upstream delays and issues than projects 1 MW-AC and greater.

This program has been drastically undersubscribed since 2021 per SEA's testimony at page 23 (55% subscribed in 2022, 12% to date in 2023). When the statutory goals go unmet the statutory purposes go unmet too. As an example, program under-fulfillment leaves us with a less resilient and reliable system, as we continue to over-rely on imported natural gas for the balance unmet program goals, an insecure situation according to RI's energy plan, Energy 2035.

Q. Why do you believe that this MW Plan does not create proportional opportunities for developers of projects in the size range of 25-999 KW when compared to developments of larger sized projects, in the 1-39 MW range?

A. As I detail in the table below, which I also stated above in testimony, the levels of capacity available in these three solar classes in the prior two years were not much less than the allocations in the plan for 2024, with the percentage increases shown. At bottom the percentage increases in total capacity proposed and potential to propose are also stated. As can be seen, the increases for Medium, Commercial I and Commercial II solar classes are far less than either the proposed or the potential overall program increases and are lower as a percent of the annual total capacity when added together at 21%, compared to 28% and 26% in 2022 or 2023, respectively. These three classes together are also just 8% of the available total capacity of 300 MW. This is because the new statute allows OER and the DG Board to offer capacity that is 390% and 350% higher than that offered in 2022 and 2023 respectively, but which they declined to do.

Select Proposed Class MW Allocations and Total MW

	Columns	1	2	3	4	5
		2022	2023	2024	22 to '24	23 to '24
A.	Medium	5	5	5	0%	0%
B.	Commercial I	4	4	7.5	88%	88%
C.	Commercial II	8	8	10.5	31%	31%
D.	Total	61.2	66.615	107.5	76%	61%
E.	Total Allowed	61.2	66.615	300	390%	350%
F.	A-C as Percent of Total	28%	26%	21%		
G.	A-C as Percent of Allowed			8%		

Numbers in MW-dc unless specified.

Instead of the proposed levels of capacity, Gridwealth believes it would be more aligned with the intent of the law to increase the levels of capacity allocated to these classes.

Q. Why do you believe that these amounts of capacity would be used, and, as you stated above, that the DG Board's proposed amounts are inadequate to meet the customer demand for these size of systems in the coming years, during the term of this proposed plan?

A. Gridwealth has been active in the Rhode Island solar market, primarily as an installer of C&I located systems on rooftops, for the past 10 years. The company has built more than 150 projects in New England. The company has 23 more currently in construction or under development in Rhode Island, representing more than 50 MWs of AC capacity in Rhode Island. These facilities are all third-party owned by Gridwealth, will be installed primarily by Gridwealth's Rhode Island installation affiliate Hope Electrical Installers LLC, and span in size from 200 KW to 10 MW in size. In the process of developing this Rhode Island portfolio, Gridwealth has met and worked with many building owners, not all of which have moved forward with projects, but who may do so soon. Gridwealth itself presently has relationships with the owners of more than 70 commercial buildings that are potential candidates for RE Growth projects in the range of 150 kW to 1.2 MW DC. These projects alone total to around 15MW and would take up 65% of the capacity of Medium, Commercial I and Commercial II capacity at the levels the DG Board and SEA have proposed. Gridwealth believes that at the new improved pricing levels that have been proposed this year, and going forward the next two years, the program will be much more popular as an option for C&I scale rooftop solar facilities, and that other developers have or will have similar pipelines of potential projects to enroll in the RE Growth program.

Q. Why do you have concerns about REG program performance given the currently proposed reliance on the larger enrollment classes?

A. The substantial delays and costs associated with the Affected System Operator ("ASO") studies required for projects over 1MW in size has undermined REG

participation from those larger classes. The interconnection queue information has not yet been made available to intervenors (regrettably), but the PUC, the DG Board and OER should be able to confirm, by your review, that the great falloff in REG enrollment beginning in 2021 can largely be attributed to this ASO process for interconnection of large projects. In addition, the increasing costs of distribution interconnection upgrades also plays a role. The current saturation of many circuits and substations in Rhode Island due to interconnection requests from projects greater than 1 MW-AC, and the pending combined ASO studies set to begin at ISO-NE later this year to be in compliance with FERC Order 2023, are and will continue to contribute to significant delays in the ability for greater than 1 MW-AC projects to advance and be built over the next two to three years. The REG program cannot expect to meet the General Assembly's targets or the program goals without greatly increasing the size of the Medium, Commercial I and Commercial II solar enrollment categories.

Q. Do you have any concerns regarding the benefit-cost analysis conducted in this proceeding?

A. Yes, I do. While SEA utilized the most up-to-date information in its initial filings, using the Avoided Energy Supply Components in New England ("AESC") 2021 study, a new edition of this study has been published as of February 7, 2024.[1] Notably, this means that the data the existing BCA relies on are now three years out of date. The energy landscape in New England depicted by those 2021 values no longer exists, as avoided cost components are much higher now than they were in 2021.

[1] *Avoided Energy Supply Components in New England: 2024 Report.* (AESC 2024) February 7, 2024. Prepared for the AESC 2024 Study Group by Synapse Energy Economics, et al. Available at: https://www.synapse-energy.com/aesc-2024-materials. The study is also commonly referred to as the Avoided Energy Supply *Costs* in New England study.

Table 1: Summary of avoided costs for Rhode Island under AESC 2021 "All-In Climate Policy Sensitivity" and AESC 2024 "Increased Clean Electricity Sensitivity." Average of values for 2024-2026.

		AESC 2021	AESC 2024	Difference	% Difference	Notes
Energy	2024 $/MWh	$43	$57	$14	33%	4
RPS compliance	2024 $/MWh	$9	$12	$3	29%	4,5
Electric energy and cross-DRIPE	2024 $/MWh	$44	$193	$149	338%	6
GHG non-embedded	2024 $/MWh	$1	$58	$57	4307%	4,7,8
Energy subtotal	**2024 $/MWh**	**$97**	**$319**	**$222**	**228%**	
Capacity	2024 $/kW-year	$35	$36	$1	3%	9
Capacity DRIPE	2024 $/kW-year	$66	$156	$91	139%	9,10
Regional Transmission (PTF)	2024 $/kW-year	$95	$69	-$26	-28%	11
Capacity subtotal	**2024 $/kW-year**	**$195**	**$261**	**$66**	**34%**	
Capacity subtotal	**2024 $/MWh**	**$40**	**$53**	**$13**	**34%**	**12**
Total	**2024 $/MWh**	**$137**	**$373**	**$235**	**172%**	

[1] All costs are shown as an average for 2024-2026. AESC 2021 values have been adjusted for inflation using a conversion rate of 1.129 per the AESC 2024 User Interface. Costs have not been adjusted for risk premiums or T&D loss factors.
[2] Energy, energy DRIPE, and GHG non-embedded costs are based on annual average numbers.
[3] Costs of RPS compliance are the sum of the per-MWh cost for all RPS programs active in this state.
[4] Electric energy and cross-DRIPE includes intrazonal energy DRIPE, interzonal energy DRIPE, E-G DRIPE, and E-G-E DRIPE.
[5] GHG non-embedded costs for Rhode Island are based on a marginal abatement cost derived from the electric sector.
[6] GHG non-embedded costs subtract embedded costs (RGGI) from the social cost of GHGs.
[7] Capacity, capacity DRIPE, and reliability values are shown for cleared values only. Uncleared values are not included.
[8] Capacity DRIPE values include intrazonal and interzonal effects.
[9] "Regional Transmission (PTF)" values only include regional transmission costs. This cost does not include more localized transmission costs and does not include any distribution costs. These other avoided costs may be specifically calculated in each jurisdiction.
[10] Capacity values are converted to energy values using a load factor of 56%.

The implications of this change are significant. If the avoided energy costs for Rhode Island are 228% higher than those in the initial filings, the full and current value of distributed solar is not being considered. As a result, the program and certain classes appear to be significantly less cost-effective than they truly are. We appreciate that the

DG Board and OER have directed SEA to incorporate the new AESC to provide transparency to that value for Rhode Island customers.

Moreover, SEA relied on the avoided costs from the "All-In Climate Policy Sensitivity"[2], which does not exist in AESC 2024. SEA should use the avoided costs from the "Increased Clean Electricity Sensitivity" which is comparable according to the report.[3] I believe this evidence, when available, will further support the expansion of the Medium, Commercial I and Commercial II classes of solar project in the RE Growth program.

The classes of projects that today appear to have BCA ratios of less than 1 will likely have much better and potentially positive BCA ratios with the new 2024 AESC report, which would be further cause to expand their available allocations, in addition to the shortcomings cited earlier in this testimony. We look forward to reviewing and further responding to that update when it is available in mid-March.

Q. What are your recommendations on the BCA?

A. Gridwealth recommends that the PUC direct SEA to fully update its BCA reflecting the avoided costs from AESC 2024, which the DG Board has directed them to do. We recommend requiring use of the avoided costs from the "Increased Clean Electricity Sensitivity." Then we ask for new, accurate BCA calculations.

Q. What remedy do you propose to cure the inadequacies of the proposed MW Plan, and what would you ask the PUC to seek from the DG Board?

A. Gridwealth proposes that a new, increased allocations for Medium, Commercial I and Commercial II classes of solar project in the RE Growth program. This change is

[2] SEA Testimony at 67.
[3] AESC 2024 at 331.

needed, to meet the intent of the law, and create an opportunity to meet customer demand that is proportional to the opportunity being afforded to larger projects compared to past years and that will not only better serve the program targets and purposes but will also enhance net benefits. These allocations are laid out in the table below as the "Gridwealth Recommended Allocation Plan."

Gridwealth Recommended Allocation Plan

	2024	2025	2026
Medium	15	20	25
Commercial I	15	20	25
Commercial II	20	25	30
Total Plan	134.5	170.5	232.5
Total Allowed	300	300	300
Percent Total	37%	38%	34%
Percent Allowed	17%	22%	27%

Numbers in MW-dc unless specified.

The additional MWs of capacity would simply be added to the total, as shown, not taken from any other classes of projects. These increases are only slight larger as a percentage of total program capacity as seen in the prior two years, at 37%, 38% and 34%, compared with the 28% and 26% cited earlier. They also do not reach the percentage of total allowed comparable to 2022 and 2023 until the final year, when it would reach 27% of the 300 MW. While these levels of capacity may at first appear high compared to the history of the program, the urgency with which the General Assembly and the Governor have addressed both renewable energy development goals and the clear intent to emphasize solar development on preferred locations like rooftops and brownfields through 2023 R.I. Pub. Laws §§300-301indicates that OER, the DG Board and the PUC should be looking to these classes of projects to provide the maximum amount of continued development at customer-sited locations, to increase the protection of

forestlands and open space, and to increase the speed of overall development to serve other program purposes like enhanced system resilience/reliability and reduced distribution system costs. The Gridwealth Recommended Allocation Plan will help fix this. Gridwealth requests that the PUC consider these recommendations, and then order the DG Board to revise their allocation plan to reflect these recommendations and submit such revised plan for the PUC to approve in this proceeding.

Q. Does this conclude your testimony?

Yes.