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April 6, 2023

**VIA EMAIL**

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**RE: Evaluation of Rhode Island Distributed Generation Policies Stakeholder Workshop #3: Methodology for Estimating DG Capacity Need and Evaluating Potential DG Policy Approaches**

Dear Cal Brown, Jim Kennerly, and Karen Bradbury,

Ecogy Energy, based in Newport, RI and founded in 2010, is an experienced developer, financier, and owner-operator of distributed generation projects across the U.S. and Caribbean.

Ecogy's focus and niche is on the <1 MW arena, particularly on systems sited on rooftops, parking lots, and brownfields. Ecogy believes that with sound planning, proper development, and fair incentives for these types of projects, the State, its residents, and the clean energy industry as a whole will ultimately be more successful. Ecogy firmly believes that by focusing on such projects constructed in and on the built environment, the development community can preserve precious and limited natural resources while directing the benefits of local solar to small businesses, property owners, nonprofits, low-income individuals and other organizations that need them most.

Please accept the comments below as Ecogy Energy's response with regard to the Evaluation of Rhode Island Distributed Generation Policies Stakeholder Workshop #3: Methodology for Estimating DG Capacity Need and Evaluating Potential DG Policy Approaches by Sustainable Energy Advantage, LLC, on Behalf of the Rhode Island Office of Energy Resources. Ecogy is appreciative of this process to understand the quantity of DG needed to reach Rhode Island's 100% RES by 2033.

## **Proposed Approach to Calculating Compliance Demand**

Ecogy Energy agrees with SEA's recommendation to adopt an electrification case that is in line with meeting 2030 (and thereafter) Act on Climate requirements for calculating compliance demand through 2033. Additionally, this data on the status the state is in to meet the RES of 100% by 2033 should be accessible to the public and shown in a dashboard by category with regular quarterly updates.

## **Out of State RECs**

While it is important to evaluate Out-of-State RECs Delivered to ISO-NE Control Area (Based on Historical Share), Ecogy would like to reemphasize that it is best to encourage a local in-state market for RECs when discussing legislative changes. This would guarantee that all of the state's energy will truly be renewable in 2030, heading the urgency of the climate crisis. Many entities who claim to be moving to renewable energy within a state, are simply purchasing cheaper out-of-state clean energy certificates rather than actual wind or solar generation in-state for compliance which undermines state goals and potentially double-counts if not accounted for properly.

### **1. Local Solar Creates Jobs**

Out-of-state RECs harm the medium scale and commercial solar industry, in Rhode Island in particular, which is a key employer and producer of local jobs. Medium and commercial scale solar promises not only cleaner energy for the state of Rhode Island and the United States but also new and consistent employment opportunities for those within the industry and also those potentially losing employment due to the clean energy transition.

There is no doubt that in the years to come, solar energy will be a key driver of employment growth. Statistics from the United States Energy & Employment Report 2021 (USEER) show that nationwide, solar electric jobs totaled 316,675 by Q4 2020 with the vast majority (123,375) being installation and construction jobs.<sup>1</sup> For comparison, oil and natural gas jobs totaled 705,180 jobs (495,210 for Petroleum, 209,970 for Natural Gas), a 21% decrease from 2019. Solar employers were reported to be on track to increase their employment by 11.7 percent in 2021, which provides much needed job opportunities amid the COVID-19 crisis that profoundly and permanently impacted the employment landscape within the U.S. **Of these solar jobs, 80.6% (USEER) are outside of the utility-scale, even though 67.8% of total solar generation (MW) is utility-scale - emphasizing the importance of supporting non-utility scale jobs in Rhode Island.**

This tells us that the jobs/MW for utility-scale is lower than that of the small and medium commercial scale. For this reason, Ecogy believes that if the state of Rhode Island and the OER

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<sup>1</sup> United States Energy & Employment Report 2021 (USEER)

want to advance economic growth through solar development, they must adopt policies that will help small-to-medium-scale commercial solar developers rather than make it harder to develop projects in-state and at a local scale that benefits communities the most.

## **2. Local Solar Will Boast The Local Economy**

It is in the best interest of the state of Rhode Island to support and uplift its solar industry because solar projects have a significant positive impact on the local economy. Out-of-state RECs will have ripple effects on the smaller commercial-scale solar industry. This will be detrimental because local commercial-scale solar projects serve small businesses, schools, government institutions, and public authorities, which helps to bolster the local economy. Investing in small, locally owned businesses and institutions leads to more prosperous and economically resilient communities.

On a national scale, a 2019 U.S. Small Business Association (SBA) report found that small businesses accounted for 44% of U.S. economic activity, making them a significant driver of jobs, innovation and economic growth.<sup>2</sup> Further, studies have shown that compared to large corporations, small businesses recirculate a larger share of every dollar within the local economy, since they create “locally owned supply chains” and invest in their employees. Research conducted in Salt Lake City, Utah, found that local retailers returned 52% of their revenue back into the local economy compared to just 14% by national chain retailers.<sup>3</sup> Additionally, small-scale businesses spend more money on local labor and locally produced services such as construction, electrical work, tree trimming, and roof repair. As a result, even modest increases in revenue can have a big impact on the local economy. Local solar, which is typically built on the roofs of small businesses, enhances these economic benefits since it provides small businesses with an additional revenue stream that they then circulate within their respective local economy.

The COVID-19 pandemic has had a devastating impact on small businesses which are the backbone of America. Small, local scale solar presents an opportunity to provide revenue for local businesses during this economic crisis while moving the country towards a cleaner economy. Additionally, building local solar projects in communities that have been hit hard by the pandemic, will circulate more money within the local community compared to utility-scale solar and will provide much needed local jobs. As a result, it is critical that Rhode Island legislators and program administrators consider the impacts of supporting out-of-state RECs, on the smaller commercial-scale solar industry in Rhode Island.

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<sup>2</sup> <https://advocacy.sba.gov/2019/01/30/small-businesses-generate-44-percent-of-u-s-economic-activity/>

<sup>3</sup> <https://archive.satrib.com/article.php?id=54702970&itype=CMSID>

## **Auction Process, Uncertainty, and Volatile REG Development Timeline**

The Rhode Island Renewable Energy Growth (REG) program is the most arduous to participate in regarding timeline and volatility whereas neighboring and regional markets (MA, NY, NJ, DC, etc.) have rolling admissions that promote building confidence and investor certainty that the market will be there to develop in years to come. Due to the current program tariff which has three enrollment periods per year typically held in April, July and October, developers must cease their work between October and April because the first enrollments historically have reached their allocated capacity. This results in an intense and high development phase before October to meet the April interconnection approval date. This stop-start nature of the development timeline leads to inconsistency. The RI REG program should progress to a bidding process reflective of market needs, such as seen by rolling admissions in competing markets.

The program could also be improved by determining those ceiling prices farther in advance, giving developers more certainty and time to plan for projects. For example, for the 2023 REG year, developers received Final Approved Renewable Energy Growth 2023 Program Year Classes, Targets and Ceiling Prices on March 15 and enrollment dates were not released until April 1 - just weeks before the targeted enrollment date of April 24 for the first enrollment. Ideally, ceiling prices will be set 1-year before an auction opens. The Massachusetts SMART program is an example of providing more certainty overtime, because there is transparency into future blocks which allows for investment to take place on a longer horizon and creates long-term industry standards. If the program continues to provide classes, targets, and ceiling price data at the last moment, ceiling prices at the very least should only increase and never decrease to provide developers with some baseline certainty for project finances.

Historically, making developers bid to the floor is seen as a way to ensure competitive prices to ratepayers. While performing the analysis, SEA should evaluate what the true benefit of an auction or ceiling price based enrollment process is to the ratepayer. A first come, first serve process based on maturity metrics will deploy solar and other renewable energy technologies faster and ratepayers will still benefit from clean and affordable energy when compared to fossil fuels. A first come, first serve process that reviews project maturity into the requirements to apply would also likely result in lower number of project drop outs within a program or queue due to the developers ability to execute a fully mature project instead of premature bids that initially appear to be more affordable.

## **Operating DG Projects & DG Projects Expected to Reach Commercial Operation**

During the stakeholder session on March 27, 2023, SEA discussed that given interconnection timelines for projects, SEA is assuming that projects 1 MW> will reach commercial operation in 3 years, 2 years for projects 25 kW to 1 MW and 1 year or less for residential projects under 25 kW. In Ecogy's experience these timelines are being pushed farther and farther out with many

medium and commercial projects exceeding the 2-year limit to reach commercial operation. Interconnection and construction pipelines are getting less and less certain daily.

There are many reasons why a renewable energy project may go through challenges in the REG's 24-month build time for medium solar projects such as structural issues, long lead times on equipment, Authority Having Jurisdiction (AHJ) moratoriums, lack of transparency into interconnection costs and timelines (especially with group studies), lack of streamlined permitting for smaller projects, and more. However, locking-in a solar Feed In Tariff rate for a 20-year term creates a hedge against volatile energy prices and inflation for ratepayers in the Ocean State. Developers' ability to offer a 0% escalator with the Feed In Tariff is extremely competitive compared to other electricity markets. The state should focus on removing such barriers to more rapidly deploy solar in Rhode Island.

Medium-Scale projects cannot apply for either of the 6-month extensions afforded to larger projects in the REG program. This means they must be built and operational on a quicker timeline which not only drives up costs but adds additional risk onto a project that already has less economies of scale than the other categories. While Ecogy strives to develop well-sited medium scale projects with shorter build times, unpredictable events must be considered for smaller projects.

SEA also discussed studying interconnection queues as a main way to determine the likelihood of projects reaching commercial operation, in order to derive what the current law will yield. While Ecogy understands that this analysis has to be derived from somewhere, the analysis should acknowledge that interconnection does not paint accurate pictures regarding which projects will be operational. Especially if programs do not provide extensions and interconnection processes continue to be longer and more costly.

#### Case Study: OSJL Pawtucket

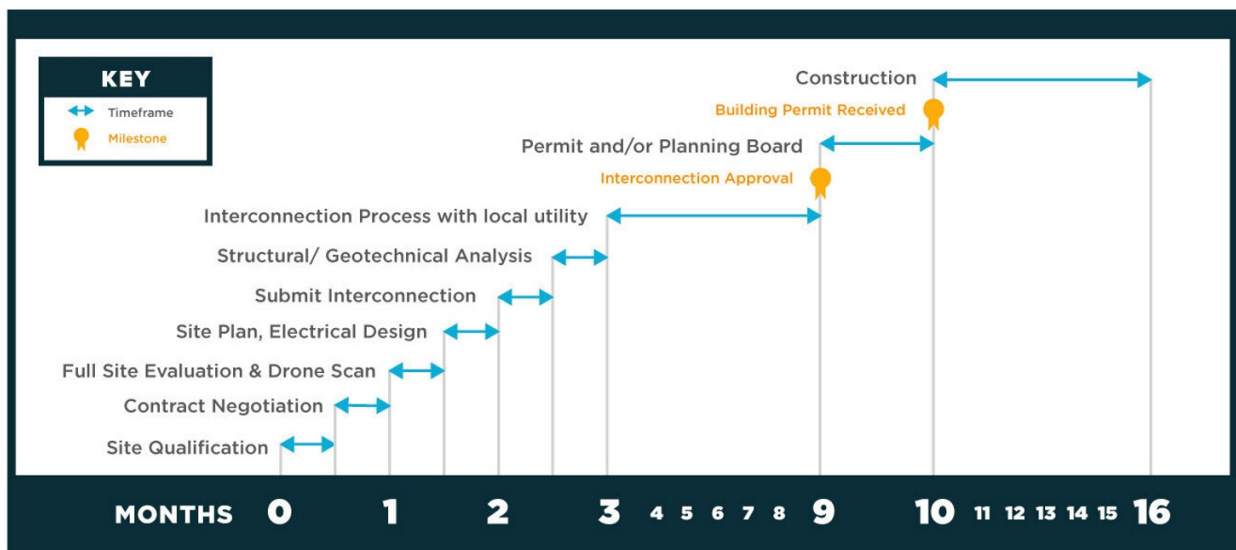
Ecogy Energy received an Interconnection Service Agreement (“ISA”) from National Grid in February of 2021 stating that the project could utilize the secondary side of the existing service transformer and that there would be no system modifications needed. Under the assumption that this scope of work (“SOW”) was feasible, Ecogy bid into the REG program and was awarded a Certificate of Eligibility (“COE”) for the Rhode Island Renewable Energy Growth Program in June of 2021 due to limited interconnection costs.

It became apparent by October 2021 that the interconnection approach would need to be revised due to the new scopes of work requested by the utility after the ISA. In August 2021, National Grid gave a new scope of work of procuring and installing a new switchgear (service disconnect) for a different location in order to meet the needs of the metering department which is requiring

that the utility meter be moved outside so that both meters are outside of the building. Rhode Island Energy confirmed the same in August 2022 with reasoning that they would not allow the service running into the building to hit a disconnect and back outside to hit the meters. This is complicated work in addition to all associated labor of potentially rerouting the building service to avoid meter relocation. Still, the quotes for scope of work were feasible to continue building the project and Rhode Island Energy offered the OSJL Pawtucket project (re-bid) a Certificate of Eligibility for the Rhode Island Renewable Energy Growth Program in the Third 2022 Open Enrollment.

In February 2022, due to utility rules around the service, the solution of a new primary service would not be allowed and meter relocation could not be avoided. The finalized costs of the SOW increased 375% from 100K to 500K, making the project unfinanceable. For perspective, this utility requirement of meter relocation increases the total project cost of this 250 kW system by nearly 50%.

There are many ways to reduce the costs of these projects and support quicker development timelines that ratepayers can depend on, such as ensuring a solar developer is not expected to solely pay for service upgrades on old building services by analyzing and implementing more equitable cost sharing plans. If the state of Rhode Island is serious about less clean energy on greenfields and more development in the built environment, then we must work together to make the process for projects as seamless as possible to get projects to commercial operation.



**Figure 1: Solar Development Cycle.** The chart highlights typical major milestones in Ecogy’s development process. By identifying key feasibility metrics upfront, we avoid wasted time and money.

The above points contribute to canceled/terminated projects in the REG Program. From 2015 - 2022, there is 139,430 kWdc in missing capacity with the REG program. Additionally, the number of projects and MWs that participated in the three open enrollment periods during the 2022 enrollment process was significantly lower than it had been in prior years. This is not a coincidence. Ecogy has stated previously that the lower number of projects is an indication of the unviability of these projects within the current ceiling price structure. Failing to support a fully subscribed medium-scale solar category undermines efforts to achieve the recently passed legislative target of one hundred percent (100%) renewable energy by 2030 in the state of Rhode Island.

<b>Total by Program Year (PY)</b>					
<b>Program Year</b>	<b>Enrollment Target (kW)</b>	<b>Total Awarded</b>	<b>Canceled/Terminated</b>	<b>Total Awarded Minus Canceled/Terminated</b>	<b>Missing Capacity 2015 - 2022 (kW)</b>
2015	25,000	22,882	789	22,093	139,430
2016	40,000	30,067	15,317	14,750	
2017	40,000	40,311	10,408	29,903	
2018	40,000	40,702	17,712	22,990	
2019	55,330	49,117	22,961	26,156	
2020	46,488	43,965	7,992	35,973	
2021	56,847	51,742	2,296	49,446	
2022	61,200	24,276	152	24,124	
<b>Total</b>	<b>364,865</b>	<b>303,062</b>	<b>77,627</b>	<b>225,435</b>	

**Figure 2.** According to REG data from 2015 - 2022, there is 139,430 kWdc in missing capacity with the REG program based on the Program Summary PY 2015-2022 Prepared for DG Board by Rhode Island Energy (“RIE”) on 1/23/2023.<sup>4</sup>

## Labor and Training

<sup>4</sup> Distributed Generation Contracts Board  
<https://opengov.sos.ri.gov/OpenMeetingsPublic/OpenMeetingDashboard?subtopmenuId=201&EntityID=873&MeetingID=0>



When determining the feasibility cost effectiveness of projects, SEA and OER should consider the major differences in labor costs between Rhode Island and neighboring states due to Rhode Island's Master electrician labor rule. Ecogy works in 12 states, the District of Columbia ("DC") and Puerto Rico, and in no other jurisdiction other than Rhode Island are we required to have electricians install racking that has no electrical risk nor skill needed. This, along with the requirements for apprentice/journeyman ratios significantly increase the cost to build a commercial solar project in Rhode Island.<sup>5</sup> Legislation should seek to address this because the roles of roofers/general construction laborers and electricians should remain separate as both serve their specialty's purpose. Asking an entire solar project site's installation crew to be licensed electricians is both unnecessary, unrealistic, and extremely harmful to the solar energy industry. While proper training, education, and site supervision are imperative to solar projects, Current Rhode Island labor laws do not add value to a solar installation and significantly increases the cost of labor for solar projects which ratepayers are impacted by.

### **The Useful Life of Solar System**

Ecogy would like to know how SEA is defining the "useful life" of a project in regard to the "25-35-years." Ecogy understands that assets have value beyond the term of the RE Growth tariff and that this value should be factored into the development of the ceiling prices. The costs associated with continuing the life of the project should also be modeled/evaluated further to determine feasibility. How does SEA plan to do so?

Particularly for rooftop projects, the system will need to be removed at the end of the warranty to reroof the property which is generally under warranty for 15-20 years. Additionally, site owners have historically been unwilling to sign a longer lease agreement than 20-years because developers can only guarantee certain lease payments for 20-years due to the REG tariff term. The majority of Ecogy's agreements have mutual extension options instead of developer-only extensions, therefore lenders are not allowing us to assign value to any project past the 20-year feed-in-tariff value term. Uncertainty regarding the size and design of future net metering programs, the additional company bandwidth and project management costs that will be required to reapply old RE Growth projects into a new net metering program, and the additional costs for re-engineering a solar facility that is switching to net metering compensation would require should all be factored in when determined programs. Inverters are only warrantied for 10 years, and after their useful life, inverters must be changed. This cost will be internalized by the owner-operator. This will result in a significant cost for inverter replacement and installation at least once, if not twice during the lifetime of the project. Panels are generally warrantied for 25-30 years.

A REG program site lease is to rent a rooftop for a front of the meter ("FTM") project for 20 years, not to design systems for an extended term with behind the meter ("BTM") implications. Ecogy strongly believes there needs to be guidance and clarification regarding net metering for

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<sup>5</sup> [Department of Labor and Training and Office of Energy Resources – Questions and Answers on Solar Installations](#)





future planning because at present, it is something Ecogy does not see as being economically feasible.

We thank you for careful consideration of these comments and appreciate your support of the clean energy industry in the Ocean State.

Warmest regards,

/s/

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