

December 13, 2023

Sherri L. Golden
Secretary of the Board
New Jersey Board of Public Utilities

Comments in the Matter of the Dual-Use Solar Energy Pilot Program
Docket No. QO23090679

Dear New Jersey Board of Public Utilities,

RIC Energy respectfully submits the following comments to Docket No. QO2309067 in the matter of the Dual-Use Solar Energy Pilot Program Straw Proposal. RIC hopes that the Board will take the following comments into consideration when finalizing the Dual-Use Solar Energy Pilot Program.

Question 2: What additional information should be collected to enable an evaluation of solar construction and operational impact on the land beneath and adjacent to the solar array?

If the BPU maintains the proposed requirements that the applicant be able to demonstrate previous use and document pre-construction soil and land conditions, the applicant should be required to submit information regarding the land's previous production. If the intent of the program is to produce research results on the impact and potential benefits of dual use projects, it is crucial to have data on both the pre-construction and post-construction production yields of the project site.

Question 3: In addition to scoring an application based on its status in the interconnection process should a minimum level of project maturity within the interconnection planning process be required of an applicant?

Yes, there should be a minimum level of project maturity within the interconnection planning process. Projects should be required to have an executed interconnection agreement before applying for capacity in the pilot program. Establishing a minimum level of project maturity will ensure that projects with little chance of reaching operation will not inundate the program administrator with frivolous applications.

Question 4: What stage should a project have achieved in the PJM interconnection queue or in the NJ EDC interconnection application process to be considered eligible to apply in the Pilot Program?

To ensure that the program administrator is not inundated with applications for projects with low viability, projects should be required to have an executed interconnection agreement to submit an application for the program. Any additional stage of interconnection which an applicant has achieved can be incorporated into the scoring criteria with the executed interconnection agreement serving as a baseline minimum requirement.

Question 6: What additional information pertaining to techniques for addressing decommissioning would be useful in the Pilot Program for the purposes of informing a future, permanent dual-use program design?

The program should require that applicants include a decommissioning plan with their application but should not necessarily require additional information pertaining to decommissioning techniques. Instead, the program should allow for the project owner to update decommissioning plans as established decommissioning guidelines change over time. Over the 15-year term of the Pilot Program projects, it is

likely that decommissioning guidelines and best practices will be modified and updated due to changes in technology, recycling practices, etc. It is also likely that best practices and established guidelines for decommissioning projects specifically sited on actively used agricultural or horticultural land will change as additional research, like the research which will be produced by this program, becomes available. Due to the changing nature of these best practices and guidelines, it is important to allow for flexibility in the applicants decommissioning proposal over time.

Question 8: What additional information pertaining to technical feasibility and technical innovation would be useful for the purposes of informing a future permanent dual-use program design?

Technical innovation should be considered a desired outcome of the pilot program instead of a factor in project scoring. While the pilot program should encourage and evaluate technical innovation and collect data on the impact of technical innovation to inform permanent program design, pilot program applications should not be scored based on theoretical or untested innovative techniques. There are several issues with awarding higher points to projects promising technical innovations and seeking increased solar or agricultural productivity. The primary issue is the speculative nature of any such project applications. Proposals to increase solar or agricultural productivity will likely be speculative or theoretical in nature and awarding higher points to these projects limits capacity availability for projects proposing to utilize proven practices. Additionally, such a scoring methodology could invite bad actors. Bad actors may promise to use innovative and experimental techniques to increase production purely for the sake of attaining a high project application score. These bad actors may have no evidence that their proposed techniques will end up being effective or they may even be aware that their proposed techniques will do no more than maintain production at an expected level. Either way, such a scoring methodology creates a program in which strong project proposals with real potential using proven methods may be edged out by projects making empty promises of innovation for the sake of receiving a capacity allocation.

The second issue is that of evaluating the likelihood of success. Not only would the BPU be unable to accurately evaluate the likelihood of success of an unproven, innovative technology or design, but the BPU would likely not even be able to develop a functional set of criteria to evaluate the likelihood of success. Criteria to evaluate the likelihood of success would need to be completely objective to ensure equity in project selection. Establishing objective criteria to evaluate the likelihood of success of an unproven and potentially even untested technology or design is outside the capabilities of the BPU and would be burdensome for the pilot program design process.

Question 9: What challenges or obstacles do you foresee that could prevent a project applicant from providing research results within the timeframe of the Pilot Program?

The most significant obstacle that could prevent a project applicant from providing research results within the timeframe of the Pilot Program is time. There are several time-related factors which will make it challenging for selected projects to produce significant results which can inform a permanent program within the given timeframe.

Inevitably, construction of the facility will disturb and impact the land designated for agricultural or horticultural use as part of the project. Depending on the season(s) in which the project is constructed and the specific use(s) of the land, the project may not start producing valuable research results until a year or even longer after construction. In a pilot program in which capacity is significantly backloaded, this means that, barring an extension of the pilot program, projects constructed in year 3 will potentially have no possibility of producing research results which can be used to inform permanent program design without significant delay and a lengthy gap between the expiration of the pilot and implementation of the permanent programs. With extremely limited capacity in the first year of the Pilot Program and limited capacity in the second year, there will be very limited research results to inform the permanent program.

Another time-related factor is the natural variability of crop yields. Annual yields of any of the crops which may be incorporated into the program are subject to a wide variety of environmental and other factors unrelated to incorporation into a dual use agrivoltaics project. In a 36-month research period, it is possible and not unlikely that due to a combination of post-construction recovery time and unrelated environmental factors, a project in the pilot program may produce only a year's worth of usable research results. Furthermore, with such limited research results, it may be difficult to determine the actual impact of the solar array on crop yields versus the impact of other external factors.

Additional Comments

The Pilot Program's overall proposed capacity and especially the proposed allocation of the capacity across the three program years, is not significant enough to achieve the goal of collecting significant research results and informing a robust permanent program. With a maximum project size of 10 MW, and a proposed first year capacity of 30 MW, the first year of the program could potentially result in only three projects being awarded capacity. With a second-year capacity of 70 MW, it is possible that only ten projects are approved over the first two years of a three-year program. With such a short-term program, having such limited capacity over the first two years and a limited overall capacity would hinder the ability of the BPU to gather data and evaluate the success of the program well enough to inform a successful permanent program. A 200 MW program would not create a significant enough sample size of research data and the allocation of the capacity across the program years would make it even more difficult to design a permanent program without significant delay. Additionally, one of the goals of the program is to encourage a variety of agricultural and horticultural uses for dual use agrivoltaics. With a 200 MW program cap and a 10 MW maximum system size, there will not be enough projects to create a well-diversified sample of various uses to appropriately inform a permanent program. The overall program capacity should be increased and the capacity allocation across program years should be more evenly distributed.

The BPU should remove the requirement that land be able to demonstrate three prior years of continued agricultural or horticultural use. A key purpose of the pilot program is to serve a research function. The research function of the program would be well-served by encouraging a diversity of pre-construction land conditions. Removing the pre-construction continued use requirement would introduce a valuable additional area of research for the program. Allowing development on land which has not been consistently in use would provide data on the impacts of agrivoltaics on previously dormant land. Data from projects built on previously unused or underutilized land could be compared to data from projects built on continued use land to inform permanent program design and future best practices for dual use project siting in general. In addition to encouraging a diversity of agricultural and horticultural uses, the program should encourage a diversity of pre-project land uses to provide the maximum breadth of research results. Allowing a variety of pre-construction land uses would also create the possibility for the program to produce data on the economic benefits of dual-use projects for landowners. Dual use projects could be a viable and beneficial option for farmland that is not currently being actively farmed for financial or economic reasons. Allowing this type of land to be eligible for the Pilot Program would enable the program to better inform the development of a permanent program in New Jersey and dual use best practices in general.

For any questions or comments please contact Gerard Weir, at gweir@ric.energy.

Respectfully,

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