BLUEWAVE

December 13, 2023

Sherri L. Golden
Secretary of the Board
44 South Clinton Avenue, 1st Floor
PO Box 350
Trenton, NJ 08625-0350

RE: Docket No. QO23090679 In the Matter of the Dual-Use Solar Energy Pilot Program

Dear Secretary Golden,

BlueWave respectfully submits the following comments in response to the Straw Proposal filed by Staff of the New Jersey Board of Public Utilities (Board) (Staff) in Docket No. QO23090679. We look forward to a robust discussion in this docket regarding the best path forward for farmers, developers, and ratepayers to participate in the Dual-Use Solar Energy Pilot Program (Pilot). While BlueWave appreciates the time and intention that Staff have put into the Straw Proposal over the past two years, feedback from these stakeholders will be essential in crafting a workable Pilot that maintains New Jersey's reputation as a leader in the agricultural, clean energy, and research communities.

BlueWave's mission is to protect our planet by transforming access to renewable energy. As a pioneering renewable energy company that develops and owns solar and battery storage projects, BlueWave is developing several gigawatts of solar and battery storage projects throughout the United States to implement a new standard of development that centers sustainability, conservation, and agriculture. We are also proud to be a certified B Corp, recognized by B Labs as "Best in the World" in Governance.

The following comments are presented according to their subject's appearance in the Straw Proposal. We have also responded directly to Staff's questions when appropriate. However, we have grave concern about the ability to build commercially viable agrivoltaic projects under the Pilot due to an unstated but overriding assumption repeated throughout the Straw Proposal. It appears that the required research projects conducted as part of the Pilot must be designed primarily to compare agricultural yields from within the array area to yields from simultaneous agricultural production outside the array area, and that this research must be conducted with a very large non-array control area. We wish to respectfully challenge this proposal's alignment with the Dual-Use Solar Energy Act of 2021 (the Act) as well as accepted best practices for building agrivoltaic projects and conducting agronomic research.

In II.D., "Staff proposes that each dual-use solar energy project must contain a dedicated array of solar panels, balance of system equipment, with an accompanying research control area identical in size to the area under and adjacent to the solar panels." Similarly, Staff writes in Appendix B:

> *The Board has engaged [Rutgers Agrivoltaic Program] RAP to advise and assist in developing the Pilot Program's research plan, to evaluate the research proposals for individual applicants, and to lead the research efforts on individual projects. A prime goal of RAP's research on individual projects is to provide comparable estimates of farm productivity with and without agrivoltaic arrays installed over the land. Each approved project will generate paired agricultural production data from an agrivoltaic array covered area and an equal-sized non array-covered area from the same farm. Both members of the pair will have the same crop and will be farmed by the same operator using the same methods.*

Such a requirement for a 50% control area inside of a commercial agricultural operation is virtually unheard of in existing agronomics literature or established agrivoltaic practice in the U.S. and around the world. Researchers and farmers should have the flexibility to design appropriate and meaningful experiments. Some common research methods utilize historic data in lieu of contemporaneous controls. In other methods, only treatment differences are compared, without a formal control.[1] In Rutgers' own agrivoltaic demonstration project, the control area is approximately one-third of the total project area.[2] However, much of the research proposed by Staff in the Straw Proposal could in fact be conducted within the solar array, using existing locational- and crop-specific data about agricultural yields as an indicative control.[3] Imposing a 50% control area as a condition of participation in the Pilot will ensure that no projects are able to participate, given its financial, operational, and justice impacts.

Without clearly defining what we are controlling for, it is hard to justify such an extreme measure. The Straw Proposal recognizes that:

> *A public research institution of higher education may serve as the primary designer and organizer of research studies involving projects selected as part of the Pilot Program. These studies should evaluate topics such as the impact of solar on crop types and yields, growing conditions, soil health, optimal solar panel installations and orientations, the economic feasibility of agricultural or horticultural operations affected by dual-use solar facilities, and other topics that the Board, a public research institution, and the State agencies determine to be relevant.*

Despite this, the Straw Proposal seems to emphasize that Staff and RAP will "establish separate minimum standards for research" and that "each approved project will be required to collect and submit data to the Board to be analyzed, summarized, and interpreted by the RAP team."

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[1] For examples of studies with alternative control methodologies, see Kramer, M. and E. Font, "Reducing sample size in experiments with animals: historical controls and related strategies," *Biol. Rev.* (2015), https://www.ars.usda.gov/ARSUserFiles/3122/KramerAndFont2015.pdf, and Adee, E., "Tillage Study for Corn and Soybeans: Comparing Vertical, Deep, and No-Tillage," *Kansas Agricultural Experiment Station Research Reports: Vol. 8: Iss. 4* (2022), https://newprairiepress.org/kaesrr/vol8/iss4/20/.

[2] Rutgers Agrivoltaics Program Update.

[3] USDA's National Agricultural Statistics Service, New Jersey Field Office.

The Straw Proposal thus eliminates the intended ability for any public research institution in New Jersey to participate. Further, the list of required data collection in Appendix B would suggest a narrow focus on research related primarily to comparing yields between the open-field control areas and agrivoltaic areas.

The Act did not contemplate such a narrow research focus adopted in the Straw Proposal. Rather, the law included only:

> *a prohibition on siting a dual-use solar energy project on prime agricultural soils and soils of Statewide importance, … which are located in Agricultural Development Areas, … unless the project in association with a research study undertaken in coordination with a New Jersey public research institution of higher education, as approved by the board in consultation with the Secretary of Agriculture.*[4]

Agricultural yields resulting from most agricultural practices on most New Jersey soils are well-understood and relatively predictable after controlling for weather variability. The applicable research data goes back over a century, and serves as an excellent body of control data within the range of economically-significant yield variation.[5] On the other hand, there is a clear and compelling need for novel research into the optimization of agrivoltaic practices for the unique conditions present in agrivoltaic arrays. Some of the most interesting questions include: How should farmers optimize their normal agricultural practices to maximize economic yields from agrivoltaic production? How should crop varieties and cultural practices change? What about planting and harvest dates, and spray protocols, and fertility and pH targets? The list is a long one.

Put another way, the most critical agronomic questions require comparison of different agricultural practices inside the array, rather than comparison of the same practices both inside and outside the array. Such research would not require an "open-field" control area. Many of the important array-related effects on agricultural production will only manifest fully on whole-field, large-scale arrays. A few examples include multiple-row shading effects; changes in humidity, moisture, and temperature at the soil surface as well as within the crop canopy and in the root zone; disease and pest dynamics; and changes in agricultural operational efficiency. These things simply can't be researched in a hybrid array of the type installed by RAP precisely because they are so strongly influenced by the scale of the array and associated agricultural operation.

Similarly, Staff's recognition of the importance of soil impacts in III.C.(e) and IV.B seems to run counter to the narrow research focus on yield impacts. Short-term yields will be comparatively more impacted by soil factors than by shading or other array-related effects. Soil compaction is a greater issue on non-prime soils. Long-term yields will also be strongly influenced by iterative adaptation to optimize agrivoltaic-specific cultural practices. The Board should strive to design a

[4] Dual-Use Solar Energy Act of 2021.
[5] See Footnote 3.

Pilot and an eventual permanent program that demonstrates the long-term viability of farming in an agrivoltaic array, bolstered by data on agronomic practices rather than crop yield.

From a financing standpoint, many projects simply will not be able to stomach the cost of eliminating half their solar production. Not only are there few parcels sufficiently large enough for this purpose, but even on a larger parcel the 50% control requirement effectively doubles the lease rate a given project will need to pay. Lease rates can significantly affect project economics, while other factors like fencing and setbacks, not to mention complicated and/or unclear research requirements, will kill any project's rate of return. BlueWave and other developers who commit to a significant pass-through of incentive to the farmer would have to compensate for arbitrary limitations on agricultural operations and otherwise productive time spent on data collection, further increasing costs.

From an equity standpoint, the 50% control requirement contradicts the focus on environmental justice in section III.C.(k).[6] A requirement for a control area of equal size will ensure that only New Jersey's largest and most well-resourced farms will be able to participate in the Pilot. Farms must have enough staff and capacity to divide their operations plan in two, duplicating every action at the same time in a different setting. Solar developers are unlikely to pay the same lease rates for land from which they earn no income; farmers thus will receive less rent for their land.

There are also intergenerational justice impacts. As proposed, the Pilot would result in very few dual-use projects coming online. Given the urgent need to transition to clean energy, the youth of New Jersey do not have time to wait for real projects to be built after this research program. Progress must happen now. Dual-use solar has been implemented successfully in Massachusetts, Maine, France, Germany, Japan, South Korea, and Kenya. Agroforestry, which has similar shade impacts to solar panels, has been practiced throughout the world for thousands of years.

The risks of agrivoltaic deployment assumed in the Straw Proposal do not exceed the societal benefits from transitioning to clean energy and preserving agricultural land. New Jersey's current and future farmers also do not have time to wait. Between 1982 and 2012, 27% of New Jersey's agricultural land was lost, primarily to expansion of urban, highly developed, and low-density residential land.[7] While we wait for research results and the implementation of a permanent program, farmers who are unable to participate due to the control area requirement will continue to face the economic pressures they face today, and may be forced to sell their land. Agrivoltaics represents an opportunity to improve the financial health of New

[6]The Environmental Protection Agency defines environmental justice as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."

[7] American Farmland Trust's 2020 Farmland Under Threat: State of the States report ranked New Jersey 3rd in the nation in terms of threats to farmland.

Jersey's landowners and farmers while protecting the soil from permanent development. Farmers deserve that opportunity.

II. Pilot Program Intent, Definitions, and Threshold Eligibility Criteria
A. Size and Term of the Dual-Use Pilot Program

In consultation with other stakeholders such as the Coalition for Community Solar Access, the American Farmland Trust, the New Jersey Farm Bureau, and other agrivoltaic developers, BlueWave has previously recommended to the Board that the Pilot implement lessons learned from the community solar pilot program and be structured so as to allow a seamless transition into a permanent dual-use program as well as integration with the permanent community solar program (Community Solar Energy Program, or CSEP). Such lessons learned have clearly indicated that a first-come, first-served approach is preferred for both ease of administration by the Board and predictability and simplicity for program applicants.

If the Board determines that a competitive solicitation as described in the Straw Proposal is preferable, we recommend releasing larger capacity buckets in order to respond to pent-up market demand and minimize the time needed to submit, review, refine, and award applications over the statutory three-year period. Two 100MW capacity buckets will likely be sufficient to meet both the Board's need for screening applications and applicants' needs for timely and predictable capacity allocation.

B. Requirement that Lands Remain in Active Agricultural or Horticultural Use

BlueWave applauds Staff for committing to define "land actively devoted to agricultural and horticultural use" before launching the Pilot. We agree that, while New Jersey's Farmland Assessment Act of 1964 is a good benchmark for demonstrating usage, any measure of continued use must allow "for the ability to substitute agricultural or horticultural uses or adapt crop rotation in response to the installation of the solar array." And, that the Act simply requires "that the land on which the dual-use solar energy project is installed continues to be actively devoted to agricultural or horticultural use." Program qualification should not be contingent upon maintaining the specific use of land based on prior years' yield data or other production metrics. Rather, if land can be demonstrated to participate in the State's farmland assessment program for the three most recent years, it should satisfy this Pilot requirement without expectation to continue the exact same agricultural or horticultural use.

BlueWave requests further clarification on language in the Straw Proposal that identifies "land below and adjacent to the solar panels" as a metric to measure continued agricultural or horticultural use. How far apart must panel rows be to satisfy the "adjacent" requirement? What about land between the end of panel rows and fencing, which may be needed to allow turning of equipment? As another consideration, when designing for a control area, developers may find the most efficient design to be eliminating certain rows of panels. Other designs may require a separate area completely devoid of panels, while certain farm layouts may even have

separate fields available that could serve as a control. More definition is needed around the continued use language to fully assess the impacts of the Straw Proposal.

C. Enforcement of Dual-Use Commitments

As stated above, BlueWave supports the standard that "land actively devoted to agricultural and horticultural use" be defined by continued participation in the State's farmland assessment program throughout the entire life of the project. Language in the Straw Proposal is unclear whether this is the "objective criteria" which determines program compliance and therefore delivery of the incentive. More information is needed about the proposed "annual reports" and "periodic site visits" that would be used to verify compliance under the Straw Proposal. Annual reporting later described in the Straw Proposal (Appendix B, referencing the COMPR Plan) details research requirements that must be provided to the Board and/or RAP. BlueWave is concerned that conflation between providing acceptable research results and providing proof of continued agricultural use may jeopardize a project's incentive.

BlueWave appreciates the process outlined in the Straw Proposal which would give participants notice of noncompliance and a cure period to remedy any issues. We ask that Staff further outline the "standardized opportunity" to come into compliance after notice is given, preferably in a defined number of business days. Staff may also consider implementing a process whereby the owner/operator provides notice that agricultural or horticultural activities are not proceeding as expected. Such a pre-emptive notice could provide flexibility in cure period duration based on the reason for non-compliance and the type of crop.

The proposal to hold incentives during any cure period is concerning. Without further guardrails around what constitutes program compliance and the process for maintaining compliance, such an extreme measure will be considered too risky for financing parties. Furthermore, the requirements to decommission and/or remediate a project site and pay back the incentive when revoked are similarly extreme. Threat of losing an incentive is enough motivation for financing parties to ensure compliance with program requirements, which is why other successful solar programs in New Jersey and throughout the country enforce this simple penalty.[8]

D. Size Limitations on Individual Dual-Use Projects

Regarding the recommendation for a minimum capacity requirement, we appreciate Staff's recognition that there must be enough revenue from the solar facility to support thoughtful design that allows agricultural activity while minimizing impact to soils and surrounding land. We agree that the intention of the Pilot should be to build commercially viable projects at a

[8] For example, the Massachusetts SMART Program monitors compliance through submission of an annual report. Developers must submit annual waivers if the report does not meet expected metrics. Failure to report or appropriately request waivers results in a yearly re-evaluation of adder eligibility. See pages 6-7 of the Guideline Regarding the Definition of Agricultural Solar Tariff Generation Units.

scale that is "worth the risk" to both farmers and developers. However, many aspects of the Straw Proposal undermine that goal. Instituting a minimum capacity requirement does not make up for the other barriers inherent in the Straw Proposal, and may be exclusionary to smaller developers and farmers who wish to participate. Such an approach discourages diversity of applicants and designs. In New York's Agricultural Technical Working Group, the Agrivoltaics Specialist Committee has coalesced around the recommendation that commercially viable projects be at least 1MW on at least 10 acres of active agricultural land.[9] An exception to this rule is granted for behind-the-meter projects that serve on-farm load, and for projects owned by a nonprofit. We recommend that New Jersey adopt a similar threshold while making other changes to the Straw Proposal that support the development of commercially viable projects.

Staff has also proposed an adjacency element to project selection, namely that "the application evaluation rubric take into account the impacts to the Act's requirement for diversity of size and agricultural and horticultural production should multiple projects be proposed at or near the 10MW limit at or near the same geography location, farm, farm parcel, entity, or interconnection point." As we have stated throughout these comments, BlueWave strongly encourages clear and transparent scoring criteria for projects in the Pilot.

BlueWave makes this recommendation based on experience in Maine, where the definition of "geographic proximity," for the purpose of restricting program qualification, was subject to a lengthy adjudicatory battle before the Public Utilities Commission.[10] We wish to avoid similar confusion, and the risk it poses to projects that may already have significant time and money invested, by defining any adjacency restrictions before the project application window. BlueWave recommends using the distinction in New Jersey's interconnection rule that each project is defined by its address, meter number, and interconnection point.[11] This established and simple practice would also allow project assemblages to participate in the Pilot. Project assemblages are often the best way to achieve economies of scale for specialized agrivoltaic operations as well as to facilitate farm management transitions. Further, assemblages may enable larger scale and more scientifically robust research.

E. Siting Considerations for Dual-Use Projects

The Straw Proposal identifies that dual-use projects are considered a permitted use within every municipality. In accordance with the Act, final program rules should further define that dual-use projects do not require a special use or conditional use permit. BlueWave encourages the Board to provide additional educational materials and technical support for municipalities that aligns with this guidance. Providing this clarification will help to streamline already lengthy processes for permitting and state approvals.

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[9] New York State Agricultural Technical Working Group.

[10] See Maine's Public Utility Commission Cases numbered 2020-00187 and 2020-00006.

[11] For example, the JCP&L Interconnection Agreement identifies a customer-generator facility by these characteristics in Attachments A and D.

III. Dual-Use Pilot Program Application Process
A. Overview of the Application Process

In line with stakeholders' recommendation for a first-come, first-served capacity allocation process described in II.A. above, BlueWave raises our concern with the scoring element of a competitive solicitation approach as described in the Straw Proposal. Simply providing project maturity and design criteria that all projects must meet, and then awarding capacity to projects that meet the criteria when they are ready to move forward, is the most efficient and effective process for administering a solar incentive program, as demonstrated by successful programs in New Jersey and across the country. The project maturity and design criteria could still be structured to meet all standards laid out in the Straw Proposal and the Act, items (a) through (l), without introducing uncertainty or subjectivity into the process for approving qualified projects.

If the Board determines that a competitive solicitation as described in the Straw Proposal is preferable, stakeholders must have clear expectations of the scoring criteria, definitions, and relative weight of each aspect of a project's application. Every single point that can possibly be awarded to a project must be clearly accounted for in the scoring rubric so that applicants know what they must do to achieve each point, and why they were awarded each point after the scoring process is completed. In particular, stakeholders must be made aware how price and non-price terms are weighted relative to each other within the scoring rubric.

B. Pre-Qualification, Application, and Incentive Program Registration Requirements and Timing

BlueWave's concern with the delay, subjectivity, and administrative burden of a competitive solicitation is only exacerbated by Staff's proposal for a pre-qualification process. Prospective applicants have already invested significant time and resources into projects over the past two years, which will become evident in the full application for the Pilot. If projects are to receive a base incentive through the ADI program, they must compete for a slot in the interconnection queue with other projects, which can currently move past the EDC application.[12] Dual-use projects should not be unfairly penalized by an artificial delay in the interconnection process, potentially leading to exacerbated timelines and increased upgrade costs. While the materials proposed to be submitted in the pre-qualification phase do not pose a problem, we urge the Board to expedite the path to a workable Pilot wherever possible, including eliminating the pre-qualification process. If the pre-qualification process is maintained, we encourage the Board to set a standardized window for review and feedback to be provided, such as 30 business days. Applicants must then be given enough time to develop full applications before the solicitation window.

[12] In its Order dated August 16, 2023, in Docket No. QO22030153, the Board directed the EDCs to "efficiently process interconnection applications for potential CSEP projects" which are now subject to the same requirements as other projects in the ADI program.

C. Application Requirements and Criteria

In each of the following sections related to application elements, BlueWave urges Staff to specifically list those items that are a requirement, those items that projects can be awarded points based on achieving, and those items that are a suggestion based on general best practices. As described above, it is essential that applicants have a defined and transparent set of requirements associated with clear point values in the scoring rubric and an understanding of how points are weighted. Having this outline of application requirements will also help stakeholders to better evaluate the Straw Proposal and the Pilot's likelihood of success, including whether or not they wish to participate.

(a) Proposals for Monitoring the Quality of Agricultural or Horticultural Use of the Land

BlueWave agrees that the minimum requirement to fulfill this piece of a project's application should be the land's continued eligibility for the State's farmland assessment program. The other recommendations listed in this section, however, appear to be onerous and unnecessary for monitoring the continued use of an agrivoltaic project. The determination of erosion potential using the Revised Universal Soil Loss Equation (RUSLE) System would be a costly and duplicative effort considering the stormwater and other permitting approvals each project must already obtain. It is also reasonable to assume that the RUSLE System analysis would not change based on the presence of a solar system on a given parcel.

Staff Question 1. What additional pre-solar conditions of the farm parcel proposed for a solar array should be documented? Staff Question 2. What additional information should be collected to enable an evaluation of solar construction and operational impacts on the land beneath and adjacent to the solar array?

BlueWave does not recommend any further documentation or information to be collected to satisfy the requirement under (a). The land's continued eligibility for the State's farmland assessment program is sufficient documentation of continued agricultural or horticultural use.

(b) Incentive Level Sought by the Applicant

The structure and source of incentive for dual-use projects proposed by Staff aligns well with stakeholders' recommendation to integrate the Pilot with existing programs. BlueWave thanks Staff for their consideration of this stakeholder consensus and reiterates that the primary source of incentive should indeed be the ADI or CSI program for which each project can qualify based on its size, interconnection jurisdiction, and sale of electricity. In addition, we agree with Staff that developers and farmers will incur marginal costs related to implementation of agrivoltaic practices, and should be compensated for these above and beyond a "base" incentive within the ADI or CSI programs. We caution Staff that cost estimates at the time of project application will necessarily be inaccurate, especially if projects are subject to complicated and/or unclear research requirements, as we discuss in section (j) below.

We urge the Board to explicitly state that Pilot projects can participate in the CSEP, given its alignment under the ADI program and the ability for agrivoltaic projects to serve community solar and low- to moderate-income subscribers. Such a clarification would mean that dual-use is an acceptable land use under the CSEP, and that any capacity awarded under the Pilot would be in addition to any capacity block limitations on the CSEP. Allowing dual-use projects to serve community solar customers has been endorsed by a wide range of stakeholders because doing so allows a single project to achieve multiple policy goals: providing savings to low-income customers, preserving the state's agricultural land, and efficiently using ratepayer funds.

Staff Question 3. Which of the alternative approaches to awarding an incentive to a dual-use solar energy project eligible for the CSI Program provide the most competitive, efficient and effective outcome at the least cost to ratepayers?

BlueWave has no response to this question.

(c) Geographic Location

BlueWave urges Staff to outline clear criteria and/or weighting information applicable to this portion of the application. Furthermore, we discourage Staff from denying any applications for viable projects based on a desire for geographic diversity.

(d) Interconnection Planning

Based on the scoring criteria proposed under (d), BlueWave understands and agrees with Staff's intention to evaluate projects based on their progress towards achieving interconnection. We are concerned, however, that EDCs are not currently processing applications for dual-use projects. This limits a project's ability to progress through the interconnection process or receive accurate information about interconnection feasibility and costs. Given that Pilot projects are anticipated to participate in either the ADI or CSI programs, which currently allow for interconnection application processing before a project receives program capacity, we recommend allowing potential dual-use projects to receive the same treatment. Beginning this process now will allow projects to apply to the Pilot with accurate information about feasibility while demonstrating their maturity and commitment to move forward. BlueWave encourages the Board to direct the EDCs to immediately begin processing interconnection applications for potential Pilot projects, as the EDCs are currently unwilling to do so without Board approval.

Staff Question 3 [sic]. 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?

BlueWave does not recommend that the Board score an application based on its status in the interconnection process or require a minimum level of project maturity at this time. Without the ability to progress past the interconnection application, projects are currently unable to

provide any information about interconnection feasibility or demonstrate any level of maturity. This is likely to remain a problem for the near future, as all dual-use projects will be essentially starting from the same point when the Board directs the utilities to begin processing applications. Given the current backlog and wait time for processing, it would be inaccurate and unfair to evaluate projects based on their relative interconnection progress over the next few months. BlueWave suggests revisiting this scoring metric and/or any requirement after the first projects are awarded capacity in the Pilot.

Staff 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?

BlueWave has no response to this question.

(e) Proposals for Minimizing the Negative Impacts to Farmland

Staff Question 5. What additional information pertaining to techniques for minimizing the negative impacts to farmland would be useful for including in the Pilot Program for the purposes of informing a future, permanent dual-use program design?

BlueWave urges Staff to outline clear criteria and/or weighting information applicable to this portion of the application. It would be especially helpful to define which elements of soil monitoring and/or farm conservation plans are a requirement for all projects and which are an element of the scoring evaluation. We agree that soil compaction and trenching is a main impact that any solar project will have on a site, and that mitigation of impacts to soil will be a critical factor for success of the Pilot. However, stakeholders need more information to accurately evaluate proposed scoring metrics for this topic.

(f) Proposals to Address Decommissioning

Staff 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?

BlueWave urges Staff to outline clear criteria and/or weighting information applicable to this portion of the application. We support a requirement to post a performance bond for decommissioning as outlined in the Act. Some requirements under the CSI Siting Rules may be appropriate, but others will not be applicable to agrivoltaic projects. [13]

(g) Proposals for Addressing Stormwater Runoff and Other Environmental Issues

[13] N.J.A.C. 14:8-12.8(g).

BlueWave agrees that water management and soil conservation are essential components of a successful solar project, regardless of its agrivoltaic characteristics. It is appropriate for projects in the Pilot to comply with the requirements of their base incentive program, either ADI or CSI. It is also necessary for projects to comply with New Jersey's Soil Erosion and Sediment Control Act, meet NJDEP's Stormwater Management Rules, protect against erosion, and meet any additional Soil Conservation District guidelines. These latter items, which Staff have listed as required at the Pilot application stage, are also required as part of any local permitting process which projects will be subject to. We recommend leaving these requirements to such local jurisdictions in order to minimize duplicative and onerous administrative work. The Board can simply require Pilot projects to provide proof of NJDEP and local permitting approval prior to their energization.

Staff Question 7. What additional information pertaining to techniques for managing stormwater impacts from impervious coverage and optimizing water management would be useful for considering in the Pilot Program for the purposes of informing a future, permanent dual-use program design?

BlueWave does not recommend requiring any further information pertaining to techniques for managing stormwater impacts from impervious coverage and optimizing water management.

(h) and (i) Technical Feasibility and Technical Innovation

More information is needed to evaluate the appropriateness and effectiveness of Staff's proposal for evaluating applications based on "a review of both technical solar feasibility and agricultural/horticultural feasibility," as well as criteria for technical innovation. BlueWave repeats its feedback that all aspects of the application and scoring rubric must be distinct and defined for applicants to best evaluate potential success under the Pilot and prepare applications to that end.

Further, we are concerned that this section of the Straw Proposal characterizes a successful Pilot project as being able to scale to a "commercially viable installation." It should be the intention of all stakeholders and the Board for Pilot projects to be commercially viable, and support a commercially viable farming operation, from the start. Developers will need to pay farmers for complying with research requirements by making changes to their farming operation that ultimately impact timing, efficiency, and production. In addition, it is unlikely that developers would be able to increase the capacity allowed at each point of interconnection after the installation and operation of a dual-use facility, due to concerns driven by cost, timing, and engineering restrictions.[14]

[14] For example, the JCP&L Interconnection Agreement specifies that: *Once an Interconnection Request is deemed complete, any modification to the proposed Customer-Generator Facility that would affect the application review criteria for a Level 2 or 3 project, and is not agreed to in writing by JCP&L, shall require submission of a new Interconnection Application.*

While BlueWave appreciates the intention of flexibility for farmers to change agricultural practices after the first three years, requirements for building research and control areas into the project design will likely limit the practical ability for farmers to do so. The flexibility allowance also raises further questions about how and when changes to the COMPR will be approved. Once the research period is complete, will farmers need Board and/or RAP approval to make changes to their farming operation? How long will such review take, and under what criteria could it be approved or denied? We encourage the Board to consider the administrative and economic lift that the Pilot will be asking of farmers, and make efforts to minimize this burden.

Staff 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?

BlueWave does not recommend requiring any further information pertaining to technical feasibility and technical innovation.

(j) Quality of Any Research Commitments During the Evaluation Period

The Pilot program should avoid a narrow focus on exact crop yield comparison between array and non-array conditions. Rather, we should design for outcomes that demonstrate how farmers change their practices in an agrivoltaic array and how those practices influence farm viability. Farmers and developers will not be able to contract with researchers, determine what the details of their research will be, and acquire appropriate research funding at the time of applying to the Pilot – at least two years before a project becomes operational.

The Board can instead ensure standardization and efficiency by separating out research proposals, and related speculative costs, from the project scoring and award process. Once accepted into the program, developers could then enroll their projects in a centralized research study and commit to providing access and data to Board-approved researchers. Results from such an approach would translate to real-world insight that can be used to inform the permanent program. In addition, Pilot projects would not need to hazard estimates about research costs on their applications, further driving down incentive requirements and associated ratepayer impact.

Staff 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 level of documentation proposed to be included in the project research plan currently imposes insurmountable costs and complexity onto a farmer. Such onerous reporting requirements would further skew the results of surveys on farm operator views towards agrivoltaics. Farmers participating in the Pilot as described in the Straw Proposal would not be demonstrating a commercially viable agrivoltaic operation, but rather managing an expensive and complex research site for RAP. We urge the Board not to lose sight of the on-the-ground

experience and practical insights that could be gained from a workable Pilot program by focusing too narrowly on academic goals.

(k) Other Criteria that the Board May Deem Advisable

Staff Question 10. What additional criteria, if any, should the Board consider in making its awards? Staff Question 11. If so, how should those additional criteria be weighted?

BlueWave supports the inclusion of additional criteria that directs the benefits of dual-use solar to overburdened communities. We also support efforts to consider environmental justice and community engagement, efforts that BlueWave is committed to prioritize during its own project development process. Any additional criteria should not be a requirement but should be reflected with additional points available in the scoring rubric based on clear and consistent metrics.

In addition, we encourage the Board to consider how overburdened communities overlap geographically with the NJ Farm Characteristics and desire for geographic diversity outlined in (l) below. Any weighting between these and other goals within the scoring rubric and application evaluation must be made clear and transparent.

(l) Size and Production Type Density

While we recognize the legislative intent to evaluate a diverse set of agrivoltaic projects under the Pilot, BlueWave cautions Staff against turning away viable projects for the purpose of meeting an academic goal. The breadth of projects submitted to the Pilot will in itself be an indication of the types of agrivoltaics that work for New Jersey, simply on the basis of what farmers are willing to do. Agrivoltaics does not have to work for every crop in New Jersey, especially if the adjustment to farming on a project qualified according to the Straw Proposal is too risky for a farmer to commit to. We should not be reserving capacity under the Pilot for that last crop to be represented in the research if other farmers are standing by ready to make their operation work. This kind of information about what is economically and practically possible, gleaned from Pilot applications, will be just as valuable in designing a permanent dual-use program as the research gathered from operating projects.

Staff Question 12. The Act gives the Board the authority to designate additional criteria in reviewing and making decisions about dual-use projects. What additional information pertaining to diversity of size and productivity would be useful for the purposes of future permanent dual-use program design?

As described above, BlueWave supports the tracking and aggregation of information pertaining to the diversity of size and productivity across Pilot projects to inform a permanent dual-use program. We do not believe that any additional criteria in the application or evaluation of Pilot projects is necessary at this time.

BLUEWAVE

Thank you for the opportunity to submit these comments. We remain committed to the design of a workable Pilot program that empowers New Jersey's hardworking farmers with the support they need and deserve. BlueWave thanks Staff and the Board for their work on the Straw Proposal thus far and urges them to strongly consider the stakeholder feedback that has been presented. We are proud to work in coalition with many others who are dedicated to preserving the Garden State's leadership on clean energy and agriculture. Please do not hesitate to reach out with further questions or concerns.

Sincerely,

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