As Adopted 9/26/2025

CMP POLICY & IMPLEMENTATION COMMITTEE MEETING
This meeting was conducted both remotely and in-person
The public could view/comment through Pinelands Commission YouTube link:
www.youtube.com/c/PinelandsCommission
Richard J. Sullivan Center
15C Springfield Rd
New Lisbon, New Jersey 08064
August 29, 2025 – 9:30 a.m.

MINUTES

Members in Attendance: Deborah Buzby-Cope, Jerome H. Irick, Jessica Rittler Sanchez

Members in Attendance (Zoom): Alan W. Avery, Jr., Mark S. Lohbauer, Chair Laura E. Matos

Members Absent: Theresa Lettman, Douglas Wallner

Staff Present: Gina Berg, John Bunnell, Ernest Deman, Lori Friddell, Susan R. Grogan, Brad Lanute, Paul Leakan, Stacey P. Roth

Also in attendance: Michael Eleneski with the Governor's Authorities Unit (Zoom)

1. Call to Order

Chair Matos called the meeting to order at 9:32 a.m.

2. Adoption of minutes from the July 25, 2025 CMP Policy & Implementation Committee Meeting

Commissioner Irick moved the adoption of the July 25, 2025 meeting minutes. Commissioner Lohbauer seconded the motion. Commissioners Avery, Irick, Lohbauer, Matos and Rittler Sanchez voted to adopt. Commissioner Buzby-Cope abstained. The motion passed.

3. Rutgers University Agrivoltaics Presentation
Attachment A to these minutes and posted on the Commission's website at the following address:
https://www.nj.gov/pinelands/home/presentations/Rutgers%20Agrivoltaics%20Program%20Presentation.pdf

Dave Specca of the Rutgers University Agrivoltaics Program provided an overview of their program. He explained that the program is multidisciplinary and includes interaction among the Program's team of scientists, the municipalities, the community, and the landowner or farmer. He discussed the initial results from three farms that are participating in the Agrivoltaics Program, the arrays, types of panels in use, energy production, and results of the crop trials. He explained the advantages and disadvantages of vertical bifacial panels, as well as single or double-wide axis tracker arrays on both crop production and energy export. He said the program continues to evaluate how solar panels affect growth and aims to identify which type of installation is best suited to a particular crop, region and climate. He said the university does not

want to make predictions based upon one year's crop trial results but will continue to gather data over the full three-year program period.

Mr. Specca said that in consideration of the importance of cranberry production to the Pinelands, he would share a presentation from an agrivoltaics project on a cranberry farm in Massachusetts. ***Attachment B to these minutes and posted on the Commission's website at the following address:*** https://www.nj.gov/pinelands/home/presentations/Ring%20Road%20Solar%20Project%2008.06.25.pdf

He said that agrivoltaics project results will vary regionally as impacted by climate. He presented the Ring Road Solar and ESS project of Massachusetts, noting that this project includes a DC-Coupled energy storage system, which creates a steadier flow of power and makes balancing the grid easier for the utility company. He reviewed the project design, explaining that the installation within a bog is challenging, as it requires higher elevation of the panel pivot to allow clearance and specific equipment to install mounting posts without cement or drilling. However, the results suggest crops benefit from the additional shading and reduction of temperature extremes. He explained the use of a DC-coupled battery for additional solar energy storage and grid-balanced delivery of the generated electricity. Mr. Specca said they found that coordination is essential between an Energy Production Company (EPC) firm, the farmer and the local utility.

Mr. Specca continued with a review of the New Jersey Board of Public Utilities' (BPU) Dual-Use Solar Energy Pilot Program, which intends to install 200 megawatts of energy production over a three-year period. He explained that the BPU is working to develop rules and regulations for dual-use solar in New Jersey. He said the BPU has contracted with the Rutgers Agrivoltaics Program (RAP) to assist with implementation and monitoring of the program.

He presented the program's project requirements noting the competitive selection process and necessary commitment to keeping the farmland in active agricultural/horticultural use with dual-use solar in place. He said there may be a monetary incentive to participating in the program through value-added to the SREC-II certificate for producing solar. Mr. Specca reviewed the dual-use project requirements and restrictions, noting that it cannot be sited on farms in the New Jersey Farmland Preservation Program, wetlands, or in Pinelands preservation areas without a waiver from the BPU. Mr. Specca also outlined the pilot program research requirements.

Mr. Specca said the dual-use solar program can provide benefits to farmers by creating a new, stable revenue source or in reducing energy costs. Program participation allows continued crop yield while producing clean energy for the state.

Chair Matos asked for Commissioner comments.

Commissioner Lohbauer said he supports the concept of agrivoltaics and hopes trial results are encouraging. He inquired if the three Rutgers farms are participating in the BPU pilot program. Mr. Specca said they are not part of the pilot since the program was not available at the start of the Rutgers research.

Commissioner Lohbauer asked if data shows which type of panel is more efficient in solar production. Mr. Specca said that a vertical, fixed bifacial is less efficient for energy production

due to its non-perpendicular orientation to the sun. A single axis that tracks the sun is more efficient and favored by farmers since it can be oriented to allow full sun on crops, tracking can be overridden, and it offers protection from hail and frost.

Commissioner Lohbauer asked if testing has evaluated the impact of higher post heights on farm production. Mr. Specca said higher posts cost more to install but offer lighting and equipment access advantages. He said the goal is to optimize both crop and energy systems. Mr. Specca said communities are more accepting of solar fields if agriculture continues.

Commissioner Lohbauer asked if the pilot program is engaging blueberry and cranberry bog farms. He said Pinelands farms could benefit from the resulting data. Mr. Specca said Rutgers recommended that the BPU look at the agricultural survey data to better allocate projects among regionally important crops throughout the state.

Commissioner Lohbauer noted the benefit of utility scale storage batteries onsite. Mr. Specca said with current technology and the right size agrivoltaics, farms could become energy independent and potentially produce some of their own nitrogen fertilizer.

Commissioner Lohbauer inquired if the Rutgers agrivoltaics program results show promise for implementation in New Jersey. Mr. Specca said it is too soon to predict, but certain crops seem more promising. He added that agrivoltaics creates a second income stream that might help farms become more economically stable and encourage long-term, generational farming.

Commissioner Rittler Sanchez asked if crop rotation affects solar design choice. Mr. Specca said it has a significant impact and design versatility is a scoring component on system evaluations. He said a system needs to have flexibility for crop change.

Commissioner Rittler Sanchez inquired if trials were completed on corn crops. Mr. Specca said trials were not conducted locally due to corn being a tall crop requiring a lot of light, but he said the state of Indiana is conducting corn crop research using 10-foot posts.

Commissioner Rittler Sanchez asked if using onsite battery storage capacity would allow a group of farms to generate sufficient electricity to qualify as community solar projects where the electric grid is weak. Mr. Specca said battery storage can regulate energy flow to the grid but added that battery storage can double the cost of a project installation.

Commissioner Rittler Sanchez questioned why electrical utilities are not more involved. Mr. Specca said utility companies support clean energy technology but solar and wind does not produce power 24 hours and thus creates a challenge in balancing the energy grid.

Commissioner Irick thanked Mr. Specca for his presentation and congratulated the Rutgers program on their receiving the National Solar Farm of the Year award. Mr. Specca said that the Rutgers program is considered a model for other universities.

Commissioner Irick inquired about disposal options for panels after their 30-year useful life. Mr. Specca said there is ongoing research on disposal options and reuse. He added that the panels

continue to produce electricity at about 80% of their original capacity after their useful life and potential re-use of the panels is being explored in areas that could benefit from both energy production and additional crop shading. He said that methods of extracting rare earth minerals from recycled panels are being tested.

Commissioner Irick questioned what the Pinelands Commission could consider to facilitate use of agrivoltaics for farmers regarding the constraints on development and clearing in wetlands in the Pinelands Comprehensive Management Plan (CMP.)

Mr. Specca said the BPU does not consider projects for the dual use program that involve new clearing in wetlands but does allow projects on agriculturally modified wetlands. The BPU is creating a model zoning ordinance for municipalities to consider for allowing agrivoltaics.

Chair Matos said the Pinelands Commission has reached out to the BPU to initiate conversation on the topic and to identify opportunities and challenges as the program relates to the Pinelands.

Commissioner Avery thanked Mr. Specca for the presentation and said he believes agrivoltaics have potential benefits for New Jersey farms, but he does not see those projects as supporting the essential character of the Pinelands. He said he prefers these dual use projects to the standard solar farms that do not allow continued agriculture.

Commissioner Avery inquired whether dual use solar is economically viable without public subsidy. Mr. Specca said dual-use solar projects have a faster start-up timeline that reduces cost but the effect of tariffs on the supplies has not been seen yet. Discussion followed on current SREC values. Commissioner Avery inquired if a system still qualifies for an SREC if it only uses battery. Mr. Specca said that if a system is connected to the grid it will qualify for SREC.

Commissioner Avery asked if the NJ Farm Bureau supports the program. Mr. Specca said they have been supportive of the research. Commissioner Avery inquired what considerations are given to system end of life decommissioning. Mr. Specca said projects proposals for the BPU dual use program are also evaluated on their decommissioning plan. He added that some municipalities are asking for an escrow to cover decommissioning.

Commissioner Avery inquired if under the State Farmland Preservation Program would both the county and state need to approve a solar project on a deed restricted farm?

Susan Payne, former Director of the State Agriculture Development Committee (SADC), was asked to respond and said solar is currently allowed on a preserved farm through the SADC only to power the farm and not for exporting electricity to the grid. This type of agrivoltaics facility is not permitted on preserved farms. She said the legislature would have to amend the Farmland Preservation Act to set conditions under which it would be allowed.

Chief of Legal and Legislative Affairs Stacey Roth asked if most of the current agrivoltaics projects are falling under the Competitive Solar Incentive (CSI) program. She also asked if agrivoltaics projects larger than 5 MWs require authorization from the electric provider. She

further inquired whether modifications to existing electric transmission infrastructure are needed to add additional capacity generated by the BPU's Dual Use Solar program.

Mr. Specca said that solar energy developers carefully select their sites to be in areas where the grid is capable.

Chair Matos thanked Mr. Specca for his presentation.

4. Update on the Interagency Council on Climate Resiliency

Attachment C to these minutes and posted on the Commission's website at the following address:
https://www.nj.gov/pinelands/home/presentations/2025.08.29%20-%20IAC%20Update.pdf

Chief Planner Brad Lanute provided an update on the work of the Interagency Council on Climate Resilience, of which the Pinelands Commission is a member agency.

He first highlighted the State of the Climate Annual Report released this month by the New Jersey Climate Change Resource Center at Rutgers University. He said the report summarizes historic projected climate trends regarding temperature, sea-level rise and rainfall. He noted the report details the risks of extreme weather events, including recent studies on projected drought trends.

Mr. Lanute highlighted the report's NJ monthly temperature and precipitation departures between August 2024 to July 2025, noting that it was an unusual weather year with dramatic shifts. Mr. Lanute said the report focused on future drought projections. The report suggests New Jersey will see wetter winters, and drier summers with more drought-prone summers in the future.

Commissioner Rittler Sanchez inquired if the data was obtained regionally or statewide. Mr. Lanute deferred to the Rutgers report for findings.

Mr. Lanute presented background on the establishment of the Interagency Council on Climate Resilience (IAC), and its multi-agency work product. He said IAC helps to support the development and implementation of the NJ Statewide Climate Change Resilience Strategy. Regarding the various priorities included in the strategy, he said the work of the Pinelands Commission most closely aligns to the priority of strengthening the resilience of New Jersey's ecosystems. He reviewed the 2024 work products of the IAC, including the release of the 2024 annual report. The 2024 annual report noted the Commission's work regarding the Pinelands Management Area Climate Vulnerability Assessment, Pinelands Conservation Fund land acquisition priorities and the implementation of the K-C rules at the municipal level.

Mr. Lanute said the Statewide Extreme Heat Resilience Action Plan (RAP) update is scheduled to be released later this year. To support the 2024 Extreme Heat RAP, the Commission committed to identifying heat tolerant native plant species for potential inclusion in the CMP list of native species.

Mr. Lanute referenced extreme heat awareness week from earlier in the summer and recent webinars that included how extreme heat threatens NJ's natural world and expert discussion on the unique ecology of the Pinelands. He also highlighted the recent IAC report on the flood resilience initiatives of multiple agencies. With regard to the Pinelands Commission, he said there was discussion involving the implementation of the CMP environmental standards, including stormwater management and water supply management.

He reviewed the IAC working groups and their individual focus points as outlined in his attached presentation. He said the Commission has been participating in the Vulnerability Assessment working group, which seeks to increase the sharing of data and tools among state agencies. He described the challenges of developing standardization for such assessments given the wide diversity among agencies in terms of their missions and size.

Chair Matos thanked Chief Planner Lanute and Land Use Programs Director Gina Berg for their participation in the IAC.

Chair Matos asked for Commissioner comments.

Commissioner Lohbauer thanked Mr. Lanute for the presentation and inquired if the IAC has any projections for actual increased temperatures as opposed to ranges. Mr. Lanute said the 2024 State of the Climate report has a section that looks at where New Jersey is in terms of meeting its greenhouse gas emission targets.

Commissioner Lohbauer asked if the report speaks to whether the state is on target for meeting its greenhouse gas emission reduction targets.

Mr. Lanute said he would have to defer to the report, but that he believed the report suggested the State is on the right path.

5. Public Comment

There were no public comments.

Commissioner Lohbauer thanked Commissioner Irick for his suggestion of the topic of agrivoltaics as an agenda discussion item for this committee.

6. Adjournment

There being no other business, Commissioner Irick moved to adjourn the meeting. Commissioner Buzby-Cope seconded the motion. All voted in favor. The meeting was adjourned at 11:08 a.m.

Certified as true and correct:

Lori A. Friddell

Lori Friddell, Land Use Programs Technical Assistant

Date: September 12, 2025