

New Jersey Dual Use Solar & Utility Solar (SREC-II) Bills

State Context, Bill Highlights & Discussion

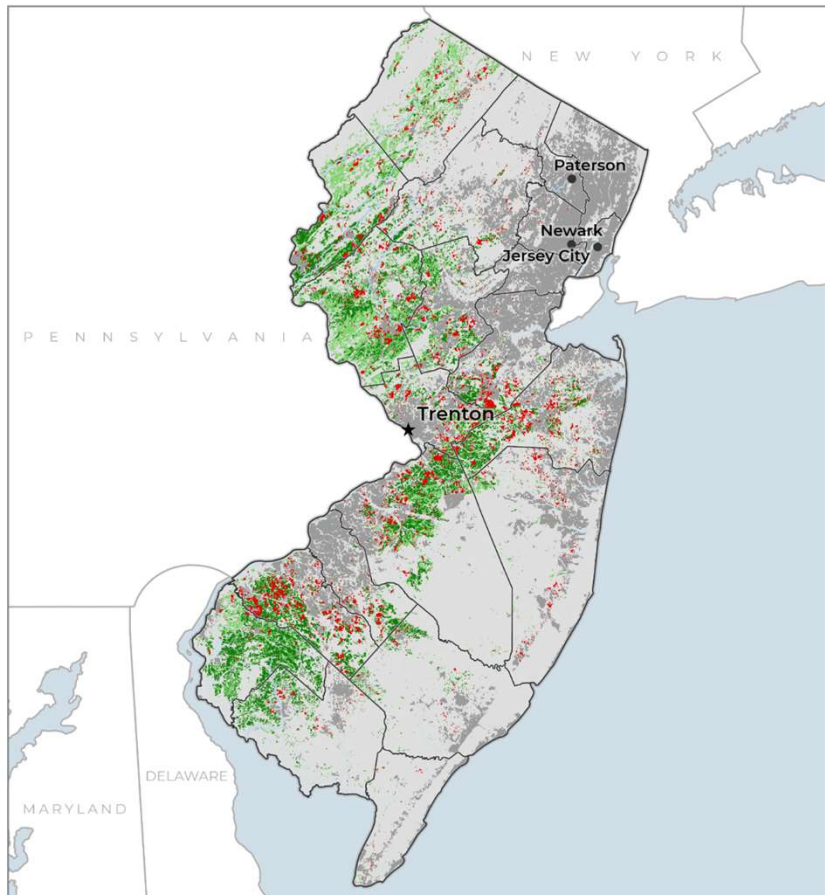
Legislation links:

<https://www.njleg.state.nj.us/bills/BillView.asp?BillNumber=S3484>

<https://www.njleg.state.nj.us/bills/BillView.asp?BillNumber=S2605>

Maine Agricultural Solar Stakeholder Group Meeting - July 22, 2021

Farms Under Threat – New Jersey



- 779,000 acres of agricultural land
- 61% (475,400 acres) is Nationally Significant

From 2001-2016:

- 10% (45,900 acres) of New Jersey's Nationally Significant land were converted.
- In total, 70,900 acres of agricultural land were developed or compromised.

RELATIVE CONVERSION THREAT

HIGH

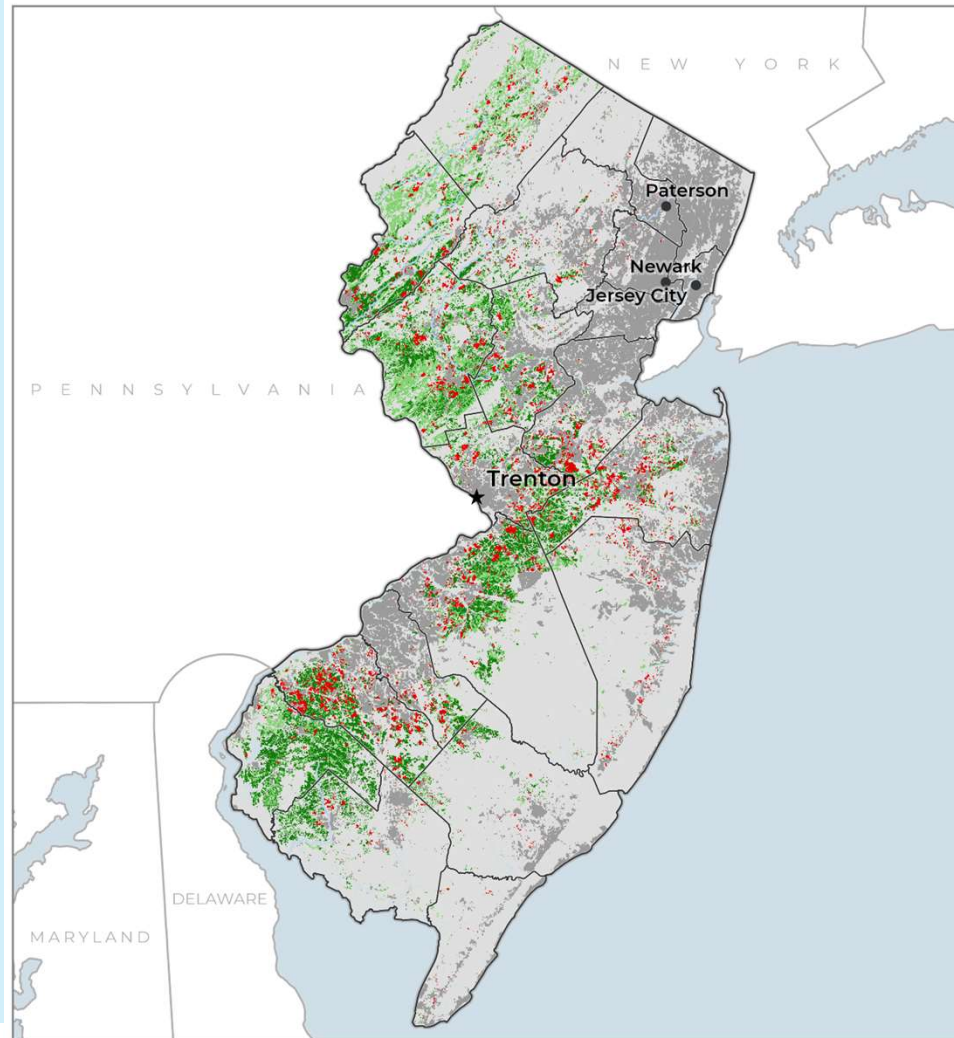
New Jersey scored among the top states for the conversion of agricultural land to urban and highly developed (UHD) and low density residential (LDR) uses.

RELATIVE POLICY RESPONSE

HIGH

New Jersey scored among the top states for policies and programs that protect agricultural land from development, promote farm viability, and facilitate the transfer of agricultural land.

<https://csp-fut.appspot.com/>



Conversion of non-federal farmland to UHD and LDR land uses from 2001-2016.



■ Conversion of agricultural land to UHD and LDR land uses

■ Farmland* that is:
■ Above state median PVR**
■ Below state median PVR

■ Urban areas

■ Federal, forest, and other lands

*Farmland is composed of cropland, pastureland, and woodland associated with farms.

**Our Productivity, Versatility and Resiliency (PVR) index helps identify high-quality agricultural land.

American Farmland Trust makes no warranties as to the suitability of the data and information found here for any particular purpose or user. Data and information may not be used for any commercial purpose. The spatial data presented here may be used as an informative inventory of agricultural land use, land quality, and specific types of conversion. Please refer to the report and technical documentation for an explanation of the methods used to develop the data and the limitations of the data. For more information or suggestions regarding the data on this site, please contact AFT's Farmland Information Center: www.farmlandinfo.org or (800) 370-4879.

2019 New Jersey Energy Master Plan

Goal 2.1.8: Coordinate permitting and siting processes for renewable energy development.

- “In order to enhance smart siting of solar, the state should better define areas that are considered marginalized, such that they have constrained economic or social value.
- “NJDEP and NJBPU will coordinate land use policy for solar siting with the New Jersey Department of Agriculture to identify sites that could be used to expand New Jersey’s commitment to renewable energy while still protecting the state’s farmland and open spaces.”

Source: NJ SADC



New Jersey Solar Snapshot (SEIA)

- **3,653 MW total installed solar**
 - **390 MW installed in 2020**
 - % of state's electricity from solar: 6.64% (9.29 million residents)
 - ME: 245 MW / 1.37% (1.36 million residents)
- **2019 Energy Master Plan**
 - 100% renewable energy by 2050
 - Solar Goals:
 - 5.2 GW by 2025 17 GW by 2035 32 GW by 2050

Major solar legislation approved by legislature in late June and signed on July 9

SADC Agricultural Impact Analysis

- Approx. 240,000 acres of protected farmland
- 538,000 acres of unpreserved farm-assessed parcels
- Of that, 264,000 acres are in upland, agricultural land use
 - 207,000 acres (78%) are within a County Agriculture Development Area (ADA)
 - 163,000 acres (79%) of farmland within the ADA's are **Prime/Statewide Important Soils** = priority for state farmland protection
- 101,000 acres in upland agricultural land are either a) NOT in ADA or b) are in ADA but not Prime/Statewide Soils

Dual Use Solar Pilot Program (A5434) – signed 7/9/21

Establishes dual-use solar project pilot program for unpreserved farmland

Allows land used for dual-use solar project to be eligible for farmland assessment

- **BPU has 180 days to issue rules and regulations, including financial incentives**
- Total capacity of pilot program: 200 MWdc (unless extended)
- Project size: up to 10 MWdc (+/- 50 acres)

To be eligible, owner of the unpreserved farmland would be required to obtain the approval of the Department of Agriculture.

https://www.njleg.state.nj.us/2020/Bills/A9999/5434_U1.HTM

Dual Use Solar Pilot Program (S3484/A5434) – signed 7/9/21

- DUS projects limited to unpreserved farmland
- Land with DUS project “must continue to be actively devoted to agricultural or horticultural use”. Guidelines and standards are TBD.
- Prohibition on prime agricultural/statewide soils in the ADA’s, unless project is part of an approved research study.
- Unless waiver granted by DEP and Sec. of Agriculture, DUS also prohibited in designated Pinelands & Highlands preservation area; freshwater/coastal wetlands
- Maintains agricultural assessment. Division of Taxation to provide guidance to on property tax assessment

Dual Use Solar Pilot Program (A5434) – signed 7/9/21

- 3 year pilot program - may be extended by two one-year periods (up to 5 years)
- If extended, Dual-Use Solar Energy Pilot Program may increase total capacity limit of all projects under program by up to 50 MW per year
 - Up to 300 MW of DUS under extended 5-year pilot
- After pilot, BPU authorized to convert pilot to **permanent program** with standards for dual use, including:
 - Capacity limit for individual projects
 - Total annual capacity limit
 - Provisions to protect prime and statewide soils in ADA and ensure continued agricultural/horticultural use
 - Decommissioning standards (performance bond)

Utility Solar Bill – SREC II (S 6405 / A4554) – enacted 7/9/21

Goal is development of at least 3.75 GW of new solar power generation by 2026.

- 750 MW of community solar (up to 5MW)
- 1,500 MW of net metered solar (on site)
- SREC II solicitations - 1,500 MW of grid supply solar facilities (> 5MW) by 2026

No grid or NM solar on preserved farmland or designated Pinelands & Highlands areas

Cap on projects > 5MW on prime agricultural soils / statewide soils in ADA's.

- 2.5% statewide threshold - waiver required for all additional projects, up to 5% cap
- For farmland in ADA, 5% cap would mean approx. 8,000 acres (NJCF)
- Lands outside ADA and nonprime farmland are more likely for solar

Comments

“A very good balance was struck between maintaining our best agricultural lands while at the same time advancing the state’s Energy Master Plan,” **said New Jersey Department of Agriculture Secretary Douglas Fisher.**

“The Department of Agriculture is working closely with BPU as well as with Rutgers University to ensure the best possible outcomes are achieved. Thank you to Governor Murphy and the Legislature for continuing to make clean energy a priority that will allow solar interests to be developed while advancing agriculture in the Garden State.”

<https://www.nj.gov/governor/news/news/562021/20210709a.shtml>

Next Steps for NJ Dual Use Guidelines

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"I'm here about the details."

Agrivoltaics Research and Development

2021 NJ State Budget includes \$2 million for demonstration projects

Rutgers University - Agrivoltaics Research & Extension Program

- Impact on yield and quality of vegetables, nursery crops, sod, cranberries, blueberries and grapes
- Impact on pastures and animals (sheep, cows, horses) grazing underneath solar panels
- Opportunities for Controlled Environment Agriculture (greenhouses and high tunnels) powered by PV solar
- Greenhouse Gas (GHG) based-Life cycle assessment for conventional field production versus crops grown under agrivoltaic systems, including impact on water consumption and renewable energy generation
- Optimal design of DUS systems for NJ farms (pole placement and height, panel type, tracking systems, etc.)
- Economic opportunities and challenges for agrivoltaics in NJ

<https://ecocomplex.rutgers.edu/agrivoltaics-research.html>

Questions / Discussion

