

Clearing the Way for Grid Supply Solar



New Jersey has been a national leader in clean energy deployment and made an ambitious commitment to secure 100% of its energy from clean sources by 2035. Especially with offshore wind project timelines delayed, we will not be able to achieve that goal without massive amounts of solar. Large-scale solar farms are an important piece of the puzzle, especially those that are located on existing brownfields or support local farming practices through agrivoltaics.

Additionally, in a state like New Jersey where open land is scarce and as ratepayers begin to struggle with increased energy prices brought on by a spike in energy demand, we must be creative and forward looking in our solutions. We should be aggressive in leveraging coordinated networks of distributed

energy through virtual power plants, which allow every-day New Jersey residents to actively contribute to cleaning up the broader energy grid. Virtual power plants coordinate distributed energy resources like solar, energy storage, and smart home devices on behalf of ratepayers who opt to participate, resulting in resource adequacy at a dramatically lower cost than the leading alternatives. Virtual power plants provide direct economic benefits to families across the state, contribute to a more flexible and decentralized power system, and increase energy security and independence, in addition to the health and environmental benefits that accompany displacing dirty peaker plants. Large-scale solar farms combined with virtual power plants can help our state simultaneously meet the increasing demand for electricity and our clean energy goals.

RECOMMENDATIONS

Create aggressive goals to power NJ with clean solar energy

- Set a goal of generating at least 20% of New Jersey's energy from in-state solar by 2030, which would represent a more than doubling of our current level of production
 - Bolster incentive programs and reduce red tape to allow for increased solar development
 - Apply pressure to PJM to clear the current backlog of projects waiting to be connected to the grid and to fast-track new in-state solar projects

Use solar to conserve and repurpose land

- Expand and improve incentive programs for farmers to engage in agrivoltaics, which can decrease the cost of farming while increasing crop yields on productive farmland
 - Work with New Jersey's nearly 10,000 farms, a number that is growing in contrast to national trends, to develop solar programs and incentives that will decrease the cost of farming while also preserving the state's rich agricultural legacy
 - Expand the state's dual-use solar pilot program to make solar energy available to every farmer who desires to participate
 - Include community solar as eligible projects
 - Enhance support for women- and minority-owned farms
- Publicly commit to return 30% of the state's known brownfields into productive use, including solar, by 2030, including 50% of brownfields in environmental justice areas
 - Create public benefits from the state's thousands of brownfields – previously contaminated sites, which now sit vacant or underutilized – by developing solar,

especially in overburdened areas where they are often not just a nuisance, but also a danger to local communities

- Leverage both existing and new programs to accelerate site remediation, building on lessons learned through New Jersey's Landfill to Solar Incentive
- Require or incentivize solar-ready warehouses to install solar (including community solar arrays) with a goal of 80% hosting arrays by 2030 to realize the goal of the state's existing solar-ready roofs requirement

Strengthen NJ's grid to unleash a clean energy future and meet our goals

- Finalize a process to fund grid upgrades fairly and efficiently, with a particular emphasis on overburdened communities, where utility redlining has often meant that people of color are left with unreliable and under-maintained grid infrastructure
 - Collaborate with impacted communities to identify key issues and co-create appropriate solutions based on community needs and vision for the future
- Require local utilities to fully utilize modern interventions that help our existing grid work better, like non-wires alternatives, grid-enhancing technologies, and reconductoring, all of which save ratepayer money by averting the need for more expensive and often outdated interventions
- Develop a long term plan to ensure our grid is ready to accommodate a dramatic increase in our energy needs over the coming years with utilities as active partners in the creation and implementation of such a plan
 - Consider performance based ratemaking as an approach to utility compensation to facilitate reaching this goal

RECOMMENDATIONS



Embrace and deploy virtual power plants

- Facilitate the development of virtual power plants while prioritizing low-income benefits and access, and ensuring robust data and privacy protections for all participants
- Initiate a pilot program to help low- and moderate-income households to adopt smart devices, which can inform a longer term strategy to ensure all NJ residents are able to fully participate in virtual power plants moving forward
- Build on NJ Board of Public Utilities requirements for utilities to create virtual power plants and encourage smart homes and microgrids that will support reliability

Accelerate and automate solar permitting

- Accelerate NJ's permitting timelines, which currently are the third-slowest in the country and are cited by contractors as the largest factor contributing to the fact that approximately 22 percent of residential solar projects that apply for permits are canceled
- Adopt a free, tested, and effective automated permitting platform, which if implemented is projected to increase the number of New Jersey families going solar by approximately 15% by 2030, totaling more than 19,000 new projects and more than 150 megawatts of clean energy