

Planning for a Zero-Emissions Electricity System



The electricity sector comprised 13% of total New York State greenhouse gas emissions in 2019. These emissions are the result of the use of fossil fuels, such as natural gas and oil, to produce electricity. These emissions include power generated from power plants both in New York and power imported from outside the state over transmission lines.

Investments in renewable energy, like wind, solar, hydropower, and transitioning away from high-emitting energy sources, like coal, have reduced electricity emissions by 46% since 1990. Despite this progress, we must scale up our work to realize an electricity system that produces no greenhouse gas emissions in 2040, starting with deploying 6,000 MW of distributed solar by 2025 and 9,000 MW of offshore wind by 2035.

Charting the Path Forward

The Scoping Plan outlines several strategies to advance electricity sector decarbonization to achieve the State's emissions reduction goals.

- **Transform Power Generation:** The aggressive deployment of clean energy resources is integral to decreasing the use of fossil fuels in the electricity sector. Programs and policies that support and encourage clean resources will be continually evaluated to ensure deployment is occurring at the pace necessary to achieve the Climate Act's requirements and goals.
- **Enhance the Grid:** Enhancements can improve the efficiency and delivery of electricity, facilitate the integration of renewable energy, and prioritize clean resources consistent with the Climate Act. At the same time, enhancements will ensure electric grid reliability and security to accommodate a zero-emissions electricity system.
- **Invest in New Technology:** Identifying and developing solutions for dispatchable technologies that can be called on as needed to balance supply and demand.

Powering a Clean and Resilient Future in New York

The Scoping Plan outlines a future vision for the electricity system that prioritizes decarbonization of electricity generation while ensuring electric grid reliability and security through investment in grid innovation.

Here's how New York's transition to a resilient, zero-emissions electricity grid will look in practice:

- **Renewably Sourced:** By 2030, 70% of electricity will be generated from renewable energy sources such as solar and wind.
- **Resilient:** New York will create a more resilient and flexible grid by generating more in-state power and deploying 3,000 MW of energy storage by 2030.
- **Market-Driven:** A Clean Energy Standard will foster renewable deployment, and New York will need to re-design its markets to support clean resources by 2050.
- **Demand-Ready:** As we electrify buildings and upgrade transmission infrastructure, load flexibility and controllability will be integrated, creating a more manageable electric grid by 2050.





Zero-Emissions Electricity in Action

In Tioga County, Generate Capital's Glen Mary community solar project is helping hundreds of households participate in and benefit from New York's clean energy transition. Every month, subscribers receive a discount, in the form of a credit, on their electric bill from the clean energy produced from the 3 MW solar array. More than 80% of the clean energy generated by the Glen Mary project is delivered low-to-moderate income (LMI) customers and Disadvantaged Community residents. This is the first community solar project completed with NYSERDA's [Inclusive Community Solar Adder](#), which incentivizes projects that serve affordable housing, LMI households, and Disadvantaged Communities.



Homeowners, renters, co-op and condo owners, farms, and small businesses are eligible to subscribe to community solar projects. [Find a community solar project](#) to lower your energy bill and carbon footprint with solar energy produced in New York.

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