

What is the Clean Energy Standard? What is the Renewable Energy Standard?

New York State is undertaking significant changes in how it generates and delivers energy. Governor Andrew M. Cuomo's Green New Deal, a nation-leading clean energy and jobs agenda, is creating a next-generation energy system that is clean, resilient, and affordable for all New Yorkers. The Clean Energy Standard (CES), a critical component of the State's energy goals, requires that New York get 50 percent of its electricity from renewable sources, and has been expanded to ensure that 70 percent of the State's electricity comes from renewable sources by 2030 in support of the State's commitment to 100 percent carbon-free electricity by 2040.

The Renewable Energy Standard (RES) is one component of the CES. Through the RES, the State is working to grow the proportion of electricity that comes from renewable generation. The RES includes an obligation on retail electricity suppliers, such as energy service companies (ESCOs), to purchase increasing amounts of renewable energy to supply their customers and a requirement that the New York State Energy Research and Development Authority (NYSERDA) support the development of new large-scale renewable energy projects needed to meet the retail electricity supplier obligation.

What is NYSERDA's role in large-scale renewable projects?

NYSERDA was designated by the New York Public Service Commission as the central procurement entity for the RES. Through a competitive selection process which occurs at least annually, NYSERDA awards long-term contracts to developers of new renewable energy projects. The RES solicitations seek to procure renewable energy resources that are eligible under Tier 1 of the RES. The renewable technologies eligible to participate in a RES solicitation include Biogas, Biomass, Liquid Biofuels, Fuel Cell, Hydroelectric, Solar, Tidal/Ocean, and Wind. To be eligible, generation projects must have commenced operation on or after January 1, 2015. More information on RES Tier 1 eligibility can be found at nyserdera.ny.gov/RES-tier-1.

How much funding has New York State awarded under the Clean Energy Standard?

Since the first RES procurement in 2017, NYSERDA has conducted three annual solicitations which have resulted in \$3.9 billion awarded to 67 large-scale renewable energy projects. Among these awards, six of the projects incorporate energy storage, providing flexibility to deliver energy when the grid needs it most.

Once operational, the projects are expected to generate more than 9.7 million MWhs annually, which is enough clean, renewable energy to power more than 1.3 million homes each year and reduce carbon emissions by over 5.1 million tons, the equivalent to taking over 1 million cars off the road annually.

How do these solicitations support renewable energy development?

Since the construction of a large-scale renewable generation facility involves a significant capital investment, a long-term contract providing reasonably certain terms is necessary to induce such an investment. NYSERDA's long-term contracts help to secure investment in new large-scale renewable projects, assuring New Yorkers access to increasing amounts of clean energy. Projects awarded by NYSERDA must deliver energy generation for end use in New York State and will only receive payment from NYSERDA once the project fulfills all associated permitting and siting requirements, completes construction, and begins delivering electricity to the New York grid.

When will the projects be constructed/operational?

Large-scale renewable energy project development timelines vary depending upon the size and complexity of the project. These projects are large capital investment projects that take years to plan, permit, and build. Projects selected through the 2019 RES solicitation have a target commercial operation date of late 2024. Some projects may be completed sooner or later depending upon the specifications.

How will these projects benefit New York State? Will this bring jobs to my community?

Significant economic benefits of the large-scale renewable energy industry include payments to local landowners, short- and long-term job creation, payments to host communities including school districts, and spending on goods and services in supporting industries. The construction phase usually brings many short-term jobs; increases in hotel and restaurant use by non-local workers; purchase of materials, including cement and gravel; and services, such as equipment rental. Some long-term jobs may be created during the operation and maintenance of the facility, with routine spending on everything from equipment maintenance to plowing access roads in winter. The *New York Clean Energy Industry Report* found renewable electric power generation firms employ just over 22,000 clean energy workers across the State, with a projected 10.8% increase in 2019.

In 2013, NYSERDA released the *Renewable Portfolio Standard Main Tier 2013 Program Review* that analyzed three years of spending from 18 renewable energy facilities under contract with NYSERDA (including two biomass facilities, eight hydroelectric facility upgrades, and eight wind farms) and estimated total direct investment over each project's life-cycle. The research examined verified spending from each project, including long-term and short-term jobs, payments to public entities, in-state purchases, and land leases for these facilities from development and construction through the first three years of operation. The study found that every 1 megawatt-hour (MWh) of renewable energy generated under these contracts resulted in approximately \$27 of direct investment in the local community or other New York regions.

Who oversees siting and permitting of the project? What role does local government play in this process?

Major electric generating facilities with capacities equal to or larger than 25 megawatts are sited according to New York State's [Article 10 law](#). This comprehensive law provides guidance to the [New York State Board on Electric Generation Siting and the Environment](#) (Siting Board) about authorizing construction and operation of major electric generating facilities, including renewable generators. The Article 10 law streamlines the application process for developers, while providing a rigorous process for local input and ensuring environmental and public health laws are followed.

Projects with capacities less than 25 megawatts are subject to local land-use regulations as well as the State Environmental Quality Review Act (SEQR) process. The lead agency authority under SEQR (the agency or board leading the SEQR review) is most often assumed by the local planning board.

How much renewable energy development should we expect in the State over the coming years?

Growth in renewable energy development is based on a number of factors, such as electricity prices, equipment costs, state and federal policies, and energy infrastructure development. Depending on its generation profile, New York will need thousands of megawatts (MW) of new renewable projects to meet its clean energy goals.

The Renewable Energy Standard will build on the State's strong foundation of renewable projects. Through the former Renewable Portfolio Standard and NY-Sun, New York has supported a total capacity of over 7,500 megawatts of new wind, solar, hydropower, and biomass energy projects. The new projects awarded through the RES will complement previous investments and help move New York closer to its clean energy goals.

In addition to issuing annual solicitations for large-scale renewables, new renewable capacity will be added through other channels, such as the continued progress of the NY-Sun program and the development of offshore wind resources. Increased application of energy efficiency will also offset some of the new renewable capacity needed to meet New York's goals.

How can communities engage in the process? How can NYSERDA help?

NYSERDA offers resources to help local governments manage responsible clean energy development in their communities. These resources include guidebooks with step-by-step instructions and tools to guide the implementation of clean energy, technical assistance to help implement the policies and practices, and workshops to help manage clean energy development responsibly.

Pertinent information can be found in NYSERDA's Wind Energy Guide found at nyserdera.ny.gov/wind-energy-guide and the New York State Solar Guidebook found at nyserdera.ny.gov/solar-guidebook. NYSERDA offers free technical assistance to help municipalities implement the policies and practices for becoming solar-ready communities.

Please contact NYSERDA at cleanenergyhelp@nyserdera.ny.gov for more information.

NYSERDA offers objective information and analysis, innovative programs, technical expertise, and support to help New Yorkers increase energy efficiency, save money, use renewable energy, and reduce reliance on fossil fuels. NYSERDA professionals work to protect the environment and create clean energy jobs. A public benefit corporation, NYSERDA has been advancing innovative energy solutions since 1975.