

New York State Energy Research and Development Authority

Operations, Accomplishments, Mission Statement, and Performance Measurement Annual Report

Fiscal Year Ended March 31, 2021

Final Report | June 2021

NYSERDA's Promise to New Yorkers:

NYSERDA provides resources, expertise, and objective information so New Yorkers can make confident, informed energy decisions.

Our Vision:

New York is a global climate leader building a healthier future with thriving communities; homes and businesses powered by clean energy; and economic opportunities accessible to all New Yorkers.

Our Mission:

Advance clean energy innovation and investments to combat climate change, improving the health, resiliency, and prosperity of New Yorkers and delivering benefits equitably to all.

New York State Energy Research and Development Authority
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and Performance Measurement
Annual Report

Fiscal Year Ended March 31, 2021

Pursuant to Public Authorities Law Section 2800(1)

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1 NYSERDA

The New York State Energy Research and Development Authority (NYSERDA) is governed by a board consisting of 13 members, including the Commissioner of the Department of Transportation, the Commissioner of the Department of Environmental Conservation, the Chair of the Public Service Commission, and the President and CEO of the Power Authority of the State of New York, who serve ex officio. The remaining nine members are appointed by Governor Andrew M. Cuomo of the State of New York with the advice and consent of the Senate and include, as required by statute, an engineer or research scientist, an economist, an environmentalist, a consumer advocate, an officer of a gas utility, an officer of an electric utility, and three at-large members.

2 Mission, Vision, and Promise

Our Vision: New York is a global climate leader building a healthier future with thriving communities; homes and businesses powered by clean energy; and economic opportunities accessible to all New Yorkers.

Our Mission: Advance clean energy innovation and investments to combat climate change, improving the health, resiliency, and prosperity of New Yorkers and delivering benefits equitably to all.

Our Promise: NYSERDA provides resources, expertise, and objective information so New Yorkers can make confident, informed energy decisions.

3 Operational Changes and New Initiatives

This section begins with information on major clean energy policies that were enacted in 2020 and represent key drivers and context for NYSERDA's programs. This section continues to include a description of each of NYSERDA's new initiatives. Several of the new initiatives this year modify and build upon prior offerings.

3.1 Climate Leadership and Community Protection Act (Climate Act)

The Climate Leadership and Community Protection Act (Climate Act), signed July 2019 and effective January 1, 2020, is the most aggressive climate change program in the nation and puts the State on a path to complete carbon-neutrality across all sectors of the economy, including power generation, transportation, buildings, industry, and agriculture. The Climate Act has set the State target to reduce greenhouse gas (GHG) emissions from all anthropogenic sources 85 percent below 1990 levels by the year 2050, including an interim target of a zero-carbon emissions electricity sector by the year 2040 and mandates the following:

- Six thousand megawatts (MW) of solar by 2025
- Seventy percent renewable electricity by 2030
- Nine thousand MW of offshore wind by 2035
- Carbon-free electricity by 2040
- Three thousand MW of Energy Storage by 2030
- Disadvantaged communities shall receive no less than thirty-five percent of the overall benefits of spending on clean energy and energy efficiency programs, projects, or investments

With these goals, New York State is undertaking one of the most aggressive clean energy agendas in the nation. Through the CEF and its other portfolios, NYSERDA works to foster the transformation of markets, pushing them to accurately value clean energy, energy efficiency, and resilience while encouraging competition and innovation that delivers value to consumers so that the State can achieve its aggressive clean energy goals.

3.2 Offshore Wind

In January 2020, NYSERDA submitted a petition with the Public Service Commission (PSC) requesting authority to conduct a 2020 solicitation for at least 1,000 MW of Offshore Wind Renewable Energy Credits, with flexibility to accept bids up to 2,500 MW. On April 23, 2020, the PSC issued an order approving NYSERDA's petition. In its evaluation process, NYSERDA will consider the costs and

benefits of procuring from a range of project proposals that may reflect a variety of project capacities and economic benefit proposals, including port infrastructure investments. In July 2021, NYSERDA issued the second solicitation¹ seeking to procure Offshore Wind Renewable Energy Certificates associated with 1,000 megawatts or more of offshore wind energy, coordinated with a potential \$400 million opportunity in public and private investments in port infrastructure.

In January 2021,² NYSERDA has initially selected two offshore wind projects for contract negotiation under its second solicitation for offshore wind, Empire Wind 2 and Beacon Wind from Equinor Wind US LLC (Equinor). Combined, the projects total nearly 2,500 megawatts and leverage almost \$3 of private funding for every \$1 of public funding for a combined \$644 million in investments for resilient port facilities in the Capital Region and Brooklyn.

3.3 NY-Sun

In May 2020, the Public Service Commission issued an Order Extending and Expanding Distributed Solar Incentives that authorizes an additional \$573 million in funding for NY-Sun to support the new State goal of installing 6 gigawatts (GW) of solar capacity by 2025. The Order included \$135 million for projects benefitting low- to moderate-income (LMI) customers, affordable housing, environmental justice communities, and disadvantaged communities, referred to as the Solar Energy Equity Framework. The Order also included 1,810 MW of new capacity for Commercial/Industrial solar, and a Community Solar-specific incentive adder called the Community Adder.

3.4 Low- and Moderate-Income Households

Pursuant to the January 16, 2020 Order Authorizing Utility Energy Efficiency and Building Electrification Portfolios through 2025, and subsequent LMI Joint Implementation Plan, NYSERDA, and New York State Utilities have developed a Statewide LMI Portfolio, inclusive of CEF and utility investments with the objectives of increasing the impact of ratepayer funds, improving customer experience, and reaching more LMI households and affordable multifamily buildings with energy efficiency services. Through this framework, NYSERDA and the State's investor-owned utilities

¹ Purchase of Offshore Wind Renewable Energy Certificates; Request for Proposals ORECRFP20-1. <https://portal.nyserderda.ny.gov/servlet/servlet.FileDownload?file=00Pt000000OPfCVEA1>

² NYSERDA 2021 Announcements. <https://www.nyserderda.ny.gov/About/Newsroom/2021-Announcements/2021-01-13-Governor-Cuomo-Outlines-2021-Agenda-Reimagine-Rebuild-Renew>

will increase access to energy efficiency and clean energy solutions for LMI households and affordable multifamily buildings. Over the course of 2020, while still implementing current LMI programs, NYSERDA worked with the utilities to develop and refine LMI offerings with new and modified initiatives expected in 2021.

The NYSERDA portion of the LMI Joint Implementation Plan includes standard-offer incentive programs such as EmPower New York and the Multifamily Performance Program which provide incentives to offset the cost of accessing clean energy solutions; investments in longer-term market development through initiatives such as RetrofitNY and the Healthy Homes Value-Based Payments Pilot; and outreach and education initiatives such as the Low-Income Forum on Energy (LIFE) and its new Clean Energy Hub.

On-going CEF allocations to LMI initiatives are made as part of the Statewide LMI Portfolio in a manner that is complementary to utility investments to increase the impact of ratepayer funds allocated to the LMI market segment and to deliver benefits to disadvantaged communities. The CEF LMI portfolio is informed by stakeholder engagements, demonstrated market needs, and the ongoing work with the New York State utilities under New Efficiency: New York and guided by the principles in the Climate Act.

3.5 New York Clean Heat

Pursuant to the January 16, 2020 Order Authorizing Utility Energy Efficiency and Building Electrification Portfolios through 2025, NYSERDA developed a Statewide Clean Heating and Cooling Portfolio, inclusive of CEF and utility investments, with the objectives to provide customers, contractors, and other heat pump solution providers a consistent experience and business environment throughout New York State. Whereas prior to the NYS Clean Heat Program, NYSERDA and some utilities offered separate and varying heat pump programs, the program represents a shift to a consistent statewide heat pump program designed to achieve the State's ambitious heat pump goals and build the market infrastructure for a low-carbon future. The NYS Clean Heat program includes a range of initiatives to advance the adoption of efficient electric heat pump systems for space and water heating applications throughout New York State. The program offers the suite of incentives provided by the NY Electric Utilities to support customer adoption of eligible heat pump technologies—both cold climate air source and ground source systems, as well as their promotion and pricing by contractors

and other heat pump solution providers. The program is implemented in coordination with a portfolio of NYSERDA-led market development initiatives which aim to build market capacity to deliver building electrification solutions. The market development efforts include support for training and qualification of contractors, processes to assure quality installations, and marketing and education to help customers understand and select among options and to operate systems optimally.

3.6 Clean Energy Fund

During 2020, NYSERDA accomplished several key milestones related to the ongoing CEF, including the development and launch of two new initiatives: Multifamily and Heat Pumps Phase 2, as well as modifications to several existing initiatives. This section describes the evolution of the CEF portfolio, which began with the first initiatives introduced in 2016³ and continued to build in 2020.

In positioning the organization for success under the CEF, NYSERDA is continuing to streamline operations to become more responsive, adaptive, and easier to engage. NYSERDA also orients more towards a strategic, market-based approach to identify and size market opportunities as well as to uncover and address customer value propositions in a meaningful way. At this time, the CEF is undergoing a review by the Public Service Commission, as planned to occur periodically during the CEF 10-year timeframe. The review of the CEF is intended to assess the effectiveness of CEF investments and lay the groundwork for the next phase of the CEF toward meeting the long-term portfolio goals.

In this context, on December 29, 2020 NYSERDA filed a petition⁴ with the Commission requesting authorization for optimization and continuation of the portfolio. Specifically, the petition presents NYSERDA's overall vision for optimizing the CEF in light of major drivers of change, focusing on specific elements of the portfolio requiring adjustment and refinement going forward, and therefore, consideration before the Commission. This vision for CEF optimization seeks to calibrate the portfolio to reflect the many noteworthy policy and market changes that have occurred since the launch of the CEF in 2016, including the historic passage of the Climate Act, while also preserving vital continuity and stability within the CEF portfolio and with New York State's broader New Efficiency: New York

³ <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={B23BE6D8-412E-4C82-BC58-9888D496D216}>

⁴ Petition Regarding Clean Energy Fund Triennial Review <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={4E13BDD5-2FB9-4F65-B7E5-C2D25A20F2DD}>

framework. As part of this review, the petition proposes reviewing and resetting the high-level goals of the CEF to align with achieving the Climate Act mandates. The newly proposed goals, which are part of the consideration in the CEF review, will build upon progress to date and further strengthen all four CEF portfolios and their prominent role in meeting the State’s aggressive clean energy agenda.

The following sections provide a description of new CEF initiatives approved in the reporting year, although some, but not all, have been launched in this period.

3.6.1 Clean Heating and Cooling

The Clean Heating and Cooling chapter, formerly Renewable Heating and Cooling, was modified in 2020 to add the Heat Pumps Phase 2 (2020) initiative, which supports the NYS Clean Heat Program goals established in the Public Service Commission January 2020 Order. These initiatives will seek to rapidly accelerate market capacity and adoption of heat pumps across New York State. Starting in quarter 2 2020, the utilities began administering the NYS Clean Heat Statewide Heat Pump incentive program. To achieve the heat pump goals and build the market infrastructure for a low-carbon future, the utility incentive program will be paired with market development initiatives implemented by NYSERDA. NYSERDA will invest approximately \$230 million in market enabling initiatives funded through Clean Energy Fund (CEF). Across its component initiatives, the NYS Clean Heat Market Development Plan aims to build market capacity to deliver building electrification solutions—including cold climate air source heat pumps (ASHP), water and ground source heat pumps (GSHP), and heat pump water heaters (HPWH)—in order to meet the following central goals by 2025:

- Help achieve the State’s energy savings targets from the installation of heat pumps.
- Increase the pool of skilled labor needed to grow a quality-oriented industry, training 14,000 workers across the heat pump supply chain, including 4,200 workers to sell, design, and install systems.
- Reduce the cost of heat pump installations by at least 25 percent.
- Increase stocking of heat pumps by 50 percent above 2019 industry shipments and increase penetration of high-performance cold climate heat pumps to 90 percent of all heat pumps shipped for space conditioning in New York State.

3.6.2 Multisector Solutions

NYSERDA administers six initiatives aimed at broadly supporting the development and deployment of clean and renewable sources of energy, a more efficient and responsive grid, and more energy-efficient buildings across more than one targeted market segment. These multisector solutions will address cross-cutting barriers and opportunities applicable to multiple sectors, including reducing soft costs, providing technical assistance, and increasing confidence in clean energy solutions. There are six active initiatives: Technical Services, Market Challenges, Clean Energy Siting and Soft Cost Reduction, Information Products and Brokering, Pay for Performance (P4P), and Consumer Awareness. During 2020, Market Challenges, the initiative previously approved as Commercial and Industrial Carbon Challenge, has been expanded to encompass a new sub-component called “Empire Building Challenge” which is aimed at supporting the broader NY Clean Heat Market Development Plan. The Consumer Awareness initiative has been rescoped to coincide with a similar effort being undertaken in support of the NY Clean Heat effort; the plan contained here will no longer have a statewide focus. Technical Services has been revised to add funding to continue Commercial sector support and additional funding to expand support for the Multifamily sector. The Clean Energy Siting & Soft Cost Reduction initiative has been revised—adding activities to support the initial launch of the Build Ready program, in accordance with the Accelerated Renewable Energy Growth and Community Benefit Act.

3.6.3 Building Innovation

The NextGen HVAC initiative was originally approved in 2016 and focuses primarily on commercialization of advanced building technologies, technology validation to drive market impact, and fostering strategic partnerships between market participants, manufacturers, and the innovation community. The goal of the initiative is to develop, demonstrate, commercialize, and de-risk solutions that can deliver better performance and cost reductions. The initiative was modified in 2020 to add an additional \$15 million for building electrification activities as part of the NY Clean Heat Market Development Plan.

3.6.4 Multifamily

The multifamily initiative was approved for \$37 million during 2020 to provide resources to help building owners and managers better understand how to plan for and implement low-carbon projects, demonstrate and de-risk the installation and performance of low-carbon solutions such as building

electrification, integrated heating, ventilation and air conditioning (HVAC) systems, and advanced envelope solutions in a variety of multifamily building types, and quantify the non-energy benefits of low-carbon technologies to build confidence in the ability of low-carbon projects to drive property value beyond reduced utility bills.

These activities support the NYS Climate Leadership and Community Protection Act (Climate Act) by focusing on the tools and technologies needed to decarbonize New York State's existing multifamily building stock in support of our carbon reduction targets. These activities also help achieve NYS State Energy Plan goals to reduce GHG emissions through increasing awareness and consideration of energy efficiency technologies. The program will leverage and expand the reach of other NYSEDA and utility programs to help make low-carbon projects more cost-effective for multifamily owners and managers.

3.6.5 Workforce Development and Training

The Buildings Operations and Maintenance Partnerships initiative (formerly Workforce Development and Industry Partnerships) was originally approved in 2016 to help identify worker skill needs, inform investments in skills and talent development, support career pathways, and develop the training infrastructure needed to better link supply and demand in the labor market. The initiative was modified in 2020 to provide more funding for additional projects serving workforce training needs for large building portfolios, including operations and maintenance of building electrification systems as appropriate. The Talent Pipeline initiative (formerly Clean Technology and Energy Efficiency Talent Pipeline) was approved in 2018 as a proactive approach to defining, attracting, and developing the right mix of critical talent that is responsive to industry needs and market demand. Through increasing training capacity, incenting businesses to train new hires through on-the-job training, and supporting an internship program, the initiative will ensure that the State has the skilled workers necessary to meet clean energy and energy efficiency business needs. The initiative was modified in 2020 to add funding to support NY Clean Heat including targeted training in the following areas: critical needs related to NY Clean Heat incentive programs; a new career pathway training program for new workers from priority populations; new building electrification training programs and increased training capacity for designers, installers, technical sales staff and associated professional service workers; and increased incentives for companies hiring new heat pump workers.

3.6.6 Large Scale Renewables

The Offshore Wind Pre-Development and Offshore Wind Master Plan initiatives were originally approved in 2016 to focus on reducing the cost of OSW in New York State, as the State has specified its intention to work toward a meaningful long-term commitment to develop the OSW resource to maximize the energy, climate, and economic value. During 2020, the Office of Renewable Energy Siting (ORES) Support initiative was approved for \$9 million to support ORES, which was created to streamline the permitting process for large scale renewables in the State, resulting in faster turnaround times, reduced costs, and increased clarity with respect to technical and legal project requirements.

3.6.7 Commercial

NYSERDA administers four initiatives aimed to enable business models in the commercial sector that can broadly impact a diversity of buildings, owners, tenants, and businesses. The commercial strategy is anchored by decision-makers in their ability to more easily determine options and have confidence in investment decisions. NYSERDA's efforts in reducing soft costs and time frames and supporting credentialing, matchmaking, and quality assurance in the marketplace will pave the way for increased investment opportunities and more affirmative investment decisions. In early 2021, the Energy Management Technology initiative sunset its Real Time Energy Management program for commercial and industrial sectors due to high levels of market uptake and achievement of market exit goals. New funds were added to this initiative to continue to support market growth of Real Time Energy Management in Multifamily buildings. In addition, funds were added to this initiative for a new program "RTEM + Tenants" that will support energy management systems and services in leased commercial office spaces. To enable this new "RTEM + Tenants" investment, the Real Estate Tenant initiative funding was reduced by \$10 million, with these funds transferred to the Energy Management Technology initiative.

3.6.8 Innovation Capacity and Business Development

The Cleantech Startup Growth, Manufacturing Corps, and Novel Business Model initiatives were originally approved in 2017 to support a vibrant, self-sustaining clean energy technology innovation ecosystem that will accelerate the growth and scale of new business ventures focused on serving the clean energy market in New York State. Activities are designed to catalyze innovative and entrepreneurial activity in the State from the ideation stage accelerating that stage toward the development of solutions to meet market-defined clean energy technology needs and opportunities, while also providing the support infrastructure and mentorship to build the entrepreneurial and management skills necessary to increase

the likelihood of the commercial success of the ventures. During 2020 and early 2021, the Cleantech Startup Growth initiative was modified. The first update modified the Ignition Grant program and increased funding to support successful early-stage entrepreneurs providing direct financial support in response to the COVID-19 economic crisis. The second update modified the Proof of Concept Centers program and funding to reflect the Corporate Challenges' model, increased funding to extend incubator operations for an additional year and added the Carbontech Development Initiative program. The Carbontech Development Initiative will fund research, technology transfer, and commercialization of carbontech solutions and entrepreneurial fellowships. It is designed to bring carbontech innovations from lab to market (e.g., building materials, fuels, and chemicals) and, in turn, bring economic benefits to New York State.

4 Program Accomplishments

NYSERDA’s activities are focused on achieving the five strategic goals/outcomes titled, Efficient Use of Energy, Renewable and Diverse Energy Supplies, Clean Energy Economy, A Cleaner Environment, and Contract and Cycle Time/Accessibility, as shown in Table 1. NYSERDA’s 2020 accomplishments are organized and reported in alignment with these five strategic outcomes. The accomplishments are stated in a cross-program manner, and notably, include results spanning pre-CEF and CEF initiatives.

Table 1. Mission, Vision, Outcomes

Mission	Advance innovative energy solutions in ways that improve the State’s economy and environment.				
Vision	Advance clean energy innovation and investments to combat climate change, improving the health, resiliency, and prosperity of New Yorkers, and delivering benefits equitably to all.				
Stakeholders	New York State energy users, businesses, and institutions engaged in the clean energy economy.				
Core Value	NYSERDA will serve as a source of objective, credible information.				
Strategic Goals/Outcomes	Efficient Use of Energy NYSERDA reduces market barriers and spurs demand for energy solutions that reduce the energy consumption and increase the energy efficiency of New York State’s residents and businesses.	Renewable and Diverse Energy Supplies NYSERDA diversifies New York State’s portfolio of energy resources by accelerating development of renewable and distributed generation resources.	Clean Energy Economy NYSERDA catalyzes technology innovation, new business opportunities, and private investment in clean energy in New York State.	A Cleaner Environment NYSERDA enables markets for new clean energy products and services that can produce meaningful reductions in the environmental impact of energy production and use.	Contract and Cycle Time, Accessibility NYSERDA is responsive to customer needs by delivering accurate and timely information, services, and programs.

Tables 2 through 7 provide performance information for each of the five outcomes, including data that describes NYSERDA’s annual incremental commitment performance for calendar year 2020, cumulative commitments through December 2020, and the total cumulative acquired progress achieved through December 2020.

Targets for calendar year 2021 are also provided for performance measures, when possible. Beginning this year, NYSERDA's targets are expressed on an acquired basis (i.e., having to do with when funds are expended and projects completed), as acquired-based targets are consistent with NYSERDA proposed targets for the Clean Energy Fund. Acquired-based targets place a greater emphasis on putting money to work in the market and completing projects in a timely manner.

Each metrics table contains three columns on the left side representing a commitment-based view and two columns on the right side representing the acquired-based view.

- The column Target CY 2020 Commitments Addition represents the expected target NYSERDA set in the prior year for additional commitments made during this calendar year.
- The column Achieved CY 2020 Commitments Addition represents the commitments NYSERDA achieved during this calendar year.
- The column Cumulative Committed Benefits at End of 2020 represents NYSERDA's total benefits expected from projects committed through 2020, representing the current pipeline.
- The column Cumulative Acquired Benefits at End of CY 2020 represents the total benefits NYSERDA achieved from projects that have been completed through 2020.
- The column Acquired Target CY 2021 Addition represents NYSERDA's expected target for new acquired benefits achieved during the calendar year.

The quantitative performance measurement data are supplemented with contextual information, as needed and when available, and highlights of additional 2020 accomplishments.

While the listed performance measures are used to evaluate NYSERDA's progress toward goals, many of the measures are influenced by factors that are out of NYSERDA's direct control, such as economic conditions, changes in energy markets and prices, and federal and State policy and funding decisions. The measures are intended to serve as indicators of progress in the context of these external factors.

4.1 Acknowledging COVID-19 Impact

NYSERDA's forecasts have typically been completed annually during the first two months of the new calendar year so they can be fully informed by how the last calendar year ended. As such, the forecasts developed in early 2020, including the 2020 targets in this report, were completed prior to the COVID-19 pandemic and the resulting New York on PAUSE Executive Order and subsequent executive orders which placed a priority on the safety and health of every New Yorker. As a result, NYSERDA paused all on-site work conducted by contractors for all clean energy programs through May 15, 2021. Even as field work resumes, the pandemic will have had

far-reaching impacts on the economy significantly affecting both residents and businesses, with the full extent of this impact still unknown. NYSERDA is committed to driving continued progress toward NYS's clean energy goals and is examining ways that programs can support those goals while also aiding in the State's economic recovery. At this time, the targets in this report for 2020 represent pre-pandemic expectations, with the recognition that actual progress must be viewed in the unprecedented context of 2020 that it will be necessary to account for the lasting impact of the pandemic in future targets once the full impact and all elements of the recovery are better understood.

Table 2 presents NYSERDA's progress toward the efficient use of energy performance measures.

During 2020, NYSERDA's prior round of programs under the Energy Efficiency Portfolio Standard wrapped up, while current initiatives and modifications to existing initiatives under CEF continue to be ramp up. Performance against energy efficiency delivery targets shown in Table 2 (electricity and fuel saved) fell short of the targets for both MWh, MMBtu, and energy bill savings. Many CEF programs that involved customer-facing activities or in-facility engagement ceased operation for at least an entire quarter of 2020. While the pause and renewal of engagement varied across the portfolio, nearly all programs were impacted in terms of their progress toward these targets. Note that the switch from committed to acquired targets for 2021, and the timing stage of most of NYSERDA's energy efficiency programs, is partly responsible for the lowered target values seen in the table.

Table 2. Performance Measures—Efficient Use of Energy

Performance Measures	Commitment Pipeline			Acquired Benefits	
	Target CY 2020 Addition ^c	Achieved CY 2020 Addition	Total (Cumulative) at the End of CY 2020	Total (Cumulative) at the End of CY 2021	Target CY 2021 Addition
Electricity^a (GWh) saved annually due to improved energy efficiency in New York State's buildings and facilities.	922.2	575	1,860	8,436 ^b	565
Fossil Fuels^a (MMBtu) saved (in millions) annually due to improved energy efficiency in New York State's buildings and facilities.	4.5	2.4	7.1	24.7	2.9
Energy Bill Savings Annual direct energy bill savings realized by participating customers (all programs).	\$159	\$117	\$313	\$1,600	\$95

^a Starting in 2016, targets and achieved values include, consistent with NYSERDA CEF reporting, only the energy savings from CHP systems, electric vehicles, air source heat pumps, fuel cells and ground source heat pumps. However, CO₂e emission reductions and customer bill savings are fully net, accounting for both the energy savings and the energy use of these measures.

^b The system benefit charge (SBC) was authorized in 1998 and NYSERDA began programs the following year. Substantial installations had taken place beginning in 2001 and based on an average 16-year measure life, NYSERDA's 501-GWh installations will be "retired" in 2020. These amounts and the associated emission reduction and customer bill savings have been netted out of the Total Acquired Benefits at End of CY 2020 values reported.

^c As noted, the forecasts driving NYSERDA's targets were completed in early 2020, prior to the novel coronavirus pandemic. The target has not been adjusted in any way to account for the NY on PAUSE Executive Order or the expected economic impact associated with the pandemic. Actual performance will be monitored and reported but is expected to vary from the target.

Table 2a. Comparison Points—Efficient Use of Energy

Comparison Points	
Electricity (GWh)	2019 statewide annual sales of electricity—145,600 GWh ^a
Fossil Fuels (MMBtu)	2017 statewide annual (residential, commercial, industrial) natural gas and petroleum usage—1,093 million MMBtu ^a
Number of New York State households served	2019 occupied housing units in NYS—7,446,812
Number of commercial and industrial customers served	2019 business establishments in NYS—547,315 ^c

^a NYSERDA, Patterns and Trends, Energy Information Administration (EIA), 2021

^b American Community Survey

^c U.S. Census Bureau: State and County Quickfacts

Additional highlights for strategic goal/outcome Efficient Use of Energy:

- Since 1998, NYSERDA-administered energy efficiency programs have saved enough electricity to power more than 1.47 million homes each year and enough natural gas, propane, oil, and other heating fuels to heat 347,800 homes each year.
- More than 958,000 households and 42,100 commercial, industrial, and institutional customers reduced their energy use and annual energy bills by participating in NYSERDA programs since 1998.

The contribution from renewable energy resources to meet New York State’s electric load rose to 27 percent in 2019 from the adjusted 2014 baseline of 25.3 percent, an overall increase of 1.7 percent. Table 3 presents NYSERDA’s progress toward the renewable and diverse energy performance measures. Under the CES, NYSERDA was ordered to conduct regularly scheduled solicitations for the long-term procurement of qualifying renewable energy certificates (REC) to achieve anticipated and minimum results for the years 2017–2021. In January of 2020, the Public Service Commission (PSC) amended the form of NYSERDA’s Renewable Energy Standard (RES) procurements by formally adopting the Index REC price structure that has been successfully employed by the Offshore Wind program to NYSERDA’s land-based, large-scale renewable procurements, which was offered for the first time under its 2020 request for proposal. NYSERDA also sought interest, as directed by the Public Service Commission’s November 20, 2020 Order Authorizing Voluntary Modification of Certain Tier 1 Agreements, from existing eligible Renewable Portfolio Standard and RES Sellers (REC Counterparties) whose projects had not yet commenced commercial operation as of August 10, 2020 to participate in a conversion process. The conversion process allows for a voluntary modification to their existing Tier 1 REC agreements from a fixed as-bid REC price (Fixed REC) to a variable-priced Index REC pricing structure. This voluntary conversion is a one-time process and will not be re-offered in the future. Results from interested parties will be forthcoming.

The fourth RES solicitation, and the first to utilize the innovative Index REC structure, was issued in July of 2020 and resulted in 22 agreements expected to contribute 4.1 million MWh of new renewable energy once operational. The index structure resulted in highly competitive bids and have brought down expected REC costs to more than 40 percent lower than those projects awarded in 2019.

In addition to the New York State's baseline of renewable energy, the State will see significant contributions over the coming years as the result of several procurement programs, including annual solicitations for new large-scale renewables, Tier 4, offshore wind, solar incentive programs, and other State procurements. New York State has a contracted pipeline of more than 33,000 GWh of renewable generation projects.

Renewable and Diverse energy exceeded the targets due primarily to Large Scale Renewable (LSR) and NY-Sun commitments in 2020 that were significantly greater than expected. The NY Sun commitments were driven primarily by the State's expanding community solar market. In 2020, NYS completed the most community solar projects in the country, and the State's large pipeline of community solar projects continues to grow, supported by positive signals to developers, including the Phase Two Value Stack Order and NY's 6 GW commitment to distributed PV. LSR can be attributed to the increased overall procurement amount in excess of the anticipated target from the 2020 CES solicitation.

Note that the switch from committed to acquired targets for 2021, and the timing stage of most of NYSERDA's renewable energy investments, is the main reason for the lowered target values seen in the table.

Table 3. Performance Measures—Renewable and Diverse Energy

Performance Measures	Commitment Pipeline			Acquired Benefits	
	Target CY 2020 Addition ^a	Achieved CY 2020 Addition	Total (Cumulative) at the End of CY 2020	Total (Cumulative) at the End of CY 2020	Target CY 2021 Addition
Renewable resources electricity produced					
1) Annual Electricity Production (GWh) delivered to wholesale power market from incentivized installations ^c	5,770	13,515	30,530	2,685 ^b	250
2) Annual Electricity Production (GWh) from on-site installations	1,282	1,656	2,631	2,738	748
Solar PV capacity (GW) from all NYSERDA funded solar PV programs, including NY-Sun 6 GW goal^c	0.8	1.3	2.1	2.1	0.5

^a As noted, the forecasts driving NYSERDA’s targets were completed in early 2020, prior to the novel coronavirus pandemic. The target has not been adjusted in any way to account for the NY on PAUSE Executive Order or the expected economic impact associated with the pandemic. Actual performance will be monitored and reported but is expected to vary from the target.

^b Amount is net of any NYSERDA-contracted facilities which have reached their terminus year, after which NYSERDA no longer has the rights to claim the attributes of their generation.

^c NYSERDA does not, by filing this report, make any claim to the environmental attributes associated with the megawatt-hours. NYSERDA has relinquished all such rights and disavows any and all rights to any environmental claims or renewable energy to which it had made claims under previous policies.

Table 3a: Comparison Points—Renewable and Diverse Energy

Comparison Points	
New York Load Served by Renewables^a	2019 Renewable Energy Serving Load—27.0% (41,340 GWh)

^a CES Annual Progress Report—2019 <https://www.nysERDA.ny.gov/-/media/Files/Programs/Clean-Energy-Standard/2021-CES-2019-Annual-Progress-Report-Compliance-Year.pdf>

Additional highlights for strategic goal/outcome Renewable and Diverse Energy supplies:

- NYSERDA is currently supporting 138 large-scale renewable generation projects representing 11,372 MW of renewable generation capacity. There are 49 facilities operating with the remainder of the projects under design and construction.
- NYSERDA is also supporting four offshore wind generating projects, which are both under design and construction, and once operating will represent 4,186 MW of renewable capacity.

- NYSEERDA's Retail Energy Storage Incentive Program, launched in 2019, saw the second completed project in the Retail Storage Incentive Program, with a 490-kW project completed in Yorktown Heights. Block 2 of the New York City retail incentive program was fully allocated, triggering the opening of Block 3, which was fully allocated in only four months. These two blocks funded a total of 10 new battery energy storage projects in New York City, totaling 34.3 MW and 132 MWh of capacity. NYSEERDA opened a \$15m block for retail storage projects in Westchester, with over \$5m already allocated.

Table 4 presents NYSEERDA's progress toward the clean energy economy performance measures. The 2020 target for leveraged funding was significantly exceeded, largely due to procurement activities by NYSEERDA associated with the successful issuance of the fourth RES solicitations in 2020. Combined with the renewable energy projects previously announced under Governor Cuomo's Clean Energy Standard, New York State has now awarded 91 projects worth more than \$4 billion. Note that the switch from committed to acquired targets for 2021, and the timing stage of most of NYSEERDA's investments, is the main reason for the lowered target values seen in the table.

Table 4. Performance Measures—Clean Energy Economy

Performance Measures	Commitment Pipeline			Acquired Benefits	
	Target CY 2020 Addition ^c	Achieved CY 2020 Addition	Total (Cumulative) at the End of CY 2020	Total (Cumulative) at the End of CY 2021	Target CY 2021 Addition
Total funding leveraged from all NYSEERDA investments (\$million)^{a,b}	\$8,457	\$12,692	\$31,546	\$17,184	\$1,676

- a NYSEERDA's data set for leveraged funds began in 2010.
- b Data collection for leveraged funds associated with NYSEERDA's Technology and Business Development programs is an ongoing effort and the reported values included in this figure represent incomplete data that will be supplemented in future years.
- d As noted, the forecasts driving NYSEERDA's targets were completed in early 2020, prior to the novel coronavirus pandemic. The target has not been adjusted in any way to account for the NY on PAUSE Executive Order or the expected economic impact associated with the pandemic. Actual performance will be monitored and reported but is expected to vary from the target

Additional highlights for strategic goal/outcome Clean Energy Economy:

- As a component of the leveraged funding presented in Table 4, NYSEERDA's investment in technology and business development has leveraged \$610 million in 2020 for a total of \$1,703 million through the end of calendar year 2020.
- As a result of NYSEERDA's technology and business development investments:
 - There are more than 566 new and improved clean energy products in the market (including 88 new products added in 2020) in all end-use energy sectors from high efficiency furnaces to advanced lighting controls and hybrid electric buses.

- There are 100 new clean energy products in development with support from NYSERDA.
- Annual sales of products developed with NYSERDA support have reached approximately \$2,557 million.
- There are currently 91 clean energy businesses receiving financial support.
- NYSERDA’s incubator program, which supports six cleantech incubators across the State, assisted 349 clients and helped these startups raise more than \$798 million in private and non-NYSERDA public investment, while generating and retaining, 2,100 jobs and bringing dozens of new clean energy and clean technology products to the market.

Table 5 presents NYSERDA’s progress toward cleaner environment performance measures. The 2020 target for carbon reductions was exceeded (achieving 192 percent) and can be attributed to the increased overall procurement amount in excess of the anticipated target from the 2020 CES solicitation. Note that the switch from committed to acquired targets for 2021, and the timing stage of most of NYSERDA’s investments, is the main reason for the lowered target values seen in the table.

Table 5. Performance Measures—A Cleaner Environment

Performance Measures	Commitment Pipeline			Acquired Benefits	
	Target CY 2020 Addition ^a	Achieved CY 2020 Addition	Total (Cumulative) at the End of CY 2020	Total (Cumulative) at the End of CY 2021	Target CY 2021 Addition
CO₂ equivalent emission reductions due to NYSERDA’s energy efficiency, renewable, and diverse energy programs (annual metric tons) (All programs)	4,208,209	8,008,442	17,645,377	8,802,549	883,021

a As noted, the forecasts driving NYSERDA’s targets were completed in early 2020, prior to the novel coronavirus pandemic. The target has not been adjusted in any way to account for the NY on PAUSE Executive Order or the expected economic impact associated with the pandemic. Actual performance will be monitored and reported but is expected to vary from the target

Table 5a. Comparison Points—A Cleaner Environment

Comparison Points	
CO₂ emission reductions^a	2018 annual NYS power sector emissions—24 million metric tons CO ₂

a (1) U.S. Energy Information Administration. "Table 4. 2018 State energy-related carbon dioxide emissions by sector." <https://www.eia.gov/environment/emissions/state/>. Includes emissions from in-state power generation only. GHG emissions associated with imported power as well as the upstream impacts of fossil fuel extraction, processing, and transportation are being assessed in collaboration with DEC as part of a separate GHG emissions reporting process established by the Climate Act.

Energy-related environmental policies in 2020 informed by NYSERDA reports/studies:

- In response to stakeholder concerns, the Environmental Research Program advanced an effort to understand and balance agricultural lands and practices with advancing renewable energy development. This included development of a mitigation payment structure adopted by the Large-Scale Renewables and NY-Sun Programs to discourage development on high-quality mineral soils, contracting a series of research projects to understand the implications of solar development on agricultural lands and practices, and the initial formation of an Agricultural Technical Working Group to inform additional actions.
- The Environmental Research Program participated in the Adaptation and Resilience Working Group of the Climate Action Council. This working group is developing recommendations regarding climate change resilience, which will be presented for potential inclusion in the scoping plan being developed by the Council.
- The Environmental Research Program initiated projects focused on monitoring methane and other GHGs from compressor stations, landfills, and other sources. These build on the existing network of long-term monitors that will assist in developing and refining New York State's inventory in support of its Methane Reduction Plan.
- Integrated-Duty Cycle (IDC) test protocol for cordwood stoves was approved by United States Environmental Protection Agency (EPA) as a Broadly Applicable Alternative Test Method for certifying stoves. The IDC protocol was developed with support from the Environmental Research Program and evaluates efficiency and emissions performance under more realistic in-use conditions than EPA's current test protocol.
- Bureau of Ocean Energy Management adopted the output from an Environmental Research Program sponsored fishing transit workshop developed in cooperation with the Responsible Offshore Development Alliance and the New York State Department of Environmental Conservation to understand how fishermen navigate the New York Bight. This is the first-time transit lanes have been included in a draft Proposed Sales Notice, helping to assure safe and efficient transit through offshore wind developments prior to leasing.
- The Environmental Research Program developed baseline standards and best management practices for offshore wind environmental and fisheries mitigation plans and required proposers to NYSERDA's offshore wind procurement to adhere to these standards. Additionally, the procurement required financial support for monitoring of wildlife and key commercial fish stocks and advanced discussions with stakeholders regarding what should be in these plans. These approaches support transparency and productive stakeholder engagement to advance responsible offshore wind development, some of which has been emulated by regional states.

Tables 6 and 7 present NYSERDA's progress toward the contract and cycle-time performance measures, which NYSERDA assesses in terms of invoice payment and contract processing timelines. NYSERDA maintained its long-standing record of strong performance regarding prompt payment of invoices. Overall Cycle Time for the Authority remained consistent with the prior year, which has seen a reduction in cycle times across most solicitation types due to process improvements. The increase in open enrollment and task-work orders was due to some outstanding open enrollment contracts finally being signed.

Table 6. Performance Measures—Contract and Cycle Time (Invoicing)

CONTRACT AND CYCLE TIME—INVOICING					
<i>NYSERDA is responsive to customer needs—delivering accurate and timely information, services, and programs.</i>					
Performance Measures	CY 2018	CY 2019	TARGET CY 2019	CY 2020	TARGET CY 2021
Invoice payment:					
1) Number of invoices paid within 30 days	72,053 invoices	79,756 invoices	**a	71,440 invoices	**a
2) Percent of payments made within 30 days	99.99%	99.99%	100%	99.99%	100%

^a The measure will be monitored and reported but a target has not been set. NYSERDA elected not to establish a target in cases where the measure is a function of a parameter that cannot be reliably predicted (e.g., energy costs) or in cases where the metric is new to NYSERDA.

Table 7. Performance Measures—Contract and Cycle Time (Solicitations)

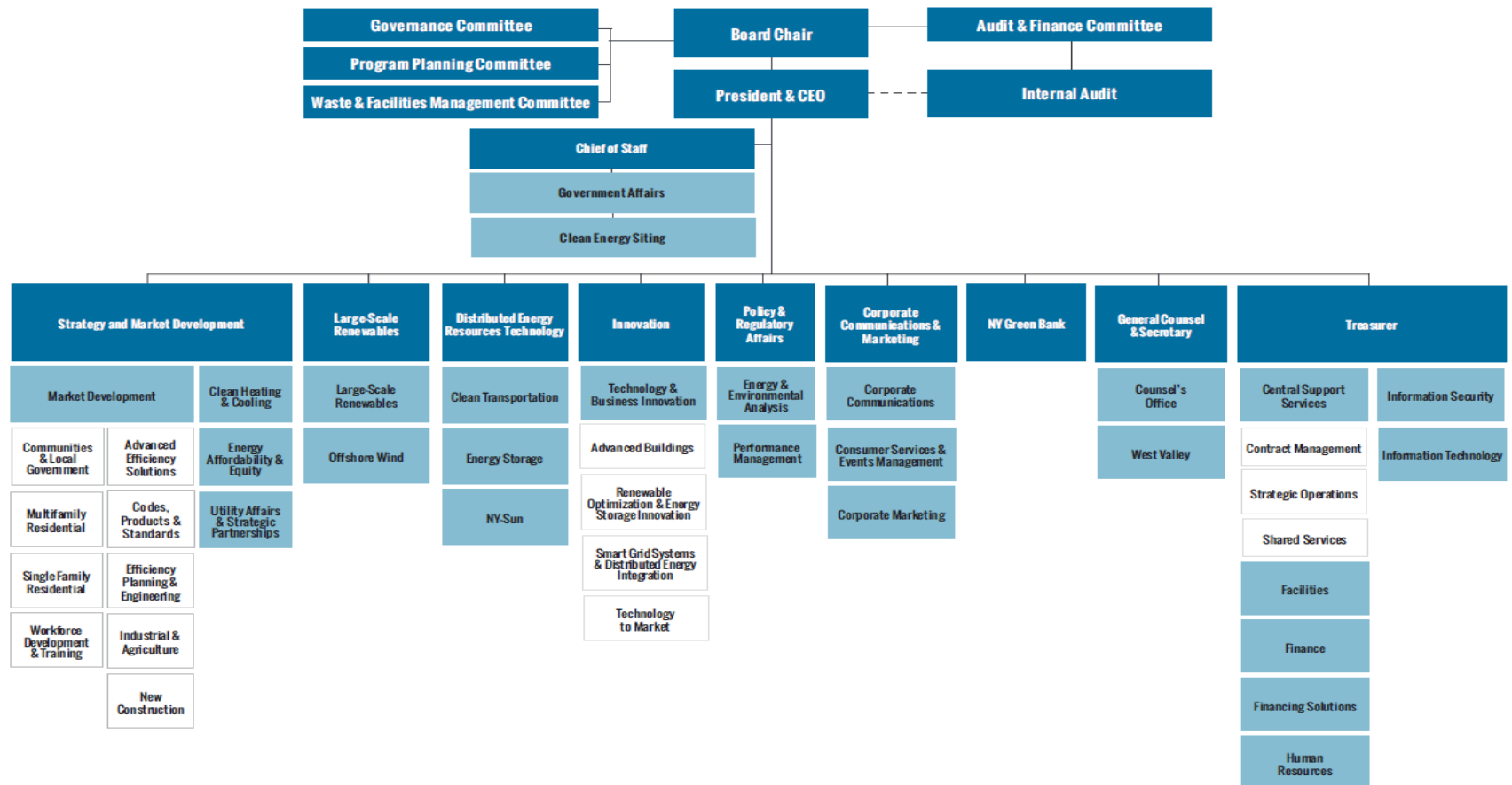
CONTRACT AND CYCLE TIME—SOLICITATIONS				
<i>NYSERDA is responsive to customer needs—delivering accurate and timely information, services, and programs.</i>				
Performance Measures	CY 2019 Median Total No. of Weeks	Target CY 2020	CY 2020 Median Total No. of Weeks	Target CY 2021
Contract Processing Time—Median time to Process (Weeks):				
1) Due Date Solicitations	33.14	32	29	30
2) Open Enrollment and Task-Work Orders	1	2	2.29	2
3) Open Enrollment (Automated) ^a	0.43	1	0.43	1
4) All Other Actions (Direct Contracts and Contract Modifications)	1.86	2	1.29	2

^a The contracting process for Residential NY-Sun projects has been automated, leading to reduced cycle times. As these processes are fundamentally different than other open enrollment solicitations, we have broken them out into their own category.

5 Program Units

This section includes NYSERDA’s program units, as represented on the organization chart below. Each unit includes a brief overview. The organization units not described in this section, but included on the organization chart are operational and administrative rather than program units.

Figure 1. NYSERDA Organizational Structure



5.1 Communities and Local Government

The Communities and Local Government unit provides a unified approach toward local energy action to better serve local communities' needs and to advance clean energy policies statewide. The program is intended to implement a common framework that enables communities to embed clean energy into their planning, help facilitate and prioritize implementation, and recognize/showcase community energy and sustainability actions.

5.2 Multifamily Residential

The Multifamily Residential unit works to overcome market barriers in the multifamily sector (residential structures containing five or more dwelling units), pursuing strategies to create awareness and demand for energy-efficient and high-performance buildings; increase market capacity to deliver energy services; stimulate consumer demand for energy and environmentally friendly buildings through clear and widely used labeling; expand the pool of trusted energy professionals serving the needs of multifamily building owners by increasing their technical skill sets and tools; demonstrate viability of deep energy retrofits in multifamily affordable housing stock; and further the emergence of performance contracting.

5.3 Single-Family Residential

The Single-Family Residential unit works to overcome market barriers towards the development of a robust, self-sustaining, market-based energy efficiency industry for the existing homes sector (residential structure containing one to four dwelling units) and facilitates the growth of demand for energy services.

5.4 Workforce Development and Training

The Workforce Development and Training unit enables workforce development and training where the lack of a trained workforce inhibits growth in a particular energy industry, or where training is needed to perform critical functions; establishes energy training as a permanent and sustainable part of the community infrastructure; and enables growth of jobs in disadvantaged communities.

5.5 Advanced Efficiency Solutions

The Advanced Efficiency Solutions team is a cross-sectoral group whose primary goal is to accelerate the adoption of energy efficiency and electrification in buildings by increasing private sector investment in building decarbonization technologies and services. Initiatives run by the Advanced Efficiency Solutions team advance commercially available energy efficiency, electrification, and load flexibility solutions that deliver carbon reductions.

5.6 Codes, Products, and Standards

The Codes, Products, and Standards team promotes energy efficiency across sectors through regulatory and supply chain interventions. The team supports building energy code advancement, education, and compliance, working with actors across the construction market, including building owners, developers, and elected officials, with a goal of promoting zero carbon or even net-carbon positive building performance. The team also drives the promotion of improved product and appliance standards, along with the adoption and expansion of building energy and water benchmarking. The team continues to find ways to improve the efficiency and success of program delivery models, including the promotion of a statewide supply chain.

5.7 Efficiency Planning and Engineering

The Efficiency Planning and Engineering Team is an inter-disciplinary group with the primary goal of increasing clean energy investment in commercial buildings. To accomplish this objective the Team engages with commercial stakeholders, sector organizations, service providers and customers to deliver monetary and informational incentives. Sector specific initiatives such as REV Campus Challenge, Commercial Tenant, and the P-12 Initiative are examples of targeted efforts the team focuses on.

5.8 Industrial and Agriculture

The Industrial and Agriculture unit looks to advance the latest technologies and techniques to drive the adoption of energy efficiency and process improvements through new strategies, including optimizing energy use and productivity as well as providing credible information toward integrating clean energy into the business mission of the industrial and agriculture sectors.

5.9 New Construction

The New Construction unit works across all sectors, including low- to moderate-income (LMI) households, to build market capacity, demonstrate value propositions, and disseminate credible information to drive the market to deep energy savings and zero-net energy performance in construction and substantial renovation projects. This includes strategies to improve contracting, design and construction practices, and promote zero- and positive-net carbon construction and renovation practices that maximize cost-effective carbon reductions.

5.10 Clean Heating and Cooling

The Clean Heating and Cooling unit will seek to enable a self-sustaining market for clean heating and cooling solutions, helping to increase the viability of net zero energy buildings in the State. Solar thermal, biomass heating, and air and ground source heat pump systems will be explored. Clean heating and cooling will address barriers to market growth, including low-customer awareness and confidence, limited trained service providers, high-upfront costs, significant soft costs, variable performance data, and lack of affordable financing solutions.

5.11 Energy Affordability and Equity

The Energy Affordability and Equity unit develops strategies and proposes policy, coordinating across all sectors and various State organizations to streamline and improve the effectiveness of energy services delivery to low- to moderate-income households. The unit also manages single-family residential energy efficiency incentive programs.

5.12 Utility Affairs and Strategic Partnerships

The Utility Affairs and Strategic Partnerships unit manages the Authority's utility engagement strategy under REV, oversees the funding agreement with the Long Island Power Authority, and leads the development of a \$50 million energy efficiency Pay-for-Performance partnership program with National Grid and Con Edison.

5.13 Large-Scale Renewables

The Large-Scale Renewables unit will sustain and expand the penetration of large-scale renewables in the State and support the development of the next frontier of renewable resources, including offshore wind. The program will document New York State's progress toward its renewable goals and facilitate

New York State’s renewable voluntary market through the management of the New York Generation Attribute Tracking System. The program will also provide stakeholder outreach, technical, and pre-development assistance to increase acceptance and reduce soft costs associated with the development of these assets as well as assess alternate energy market valuation and transmission solutions for renewables. The team will also manage over \$1 billion in existing Renewable Portfolio Standard Main Tier contracts, actively execute its Renewable Energy Standard procurement and contracting role, including management of the nearly \$4 billion in agreements awarded over the past three years, and execute on its offshore wind procurement responsibilities as assigned by the New York State Public Service Commission.

5.14 Offshore Wind

The Offshore Wind unit will support the Large-Scale Renewables program through the expansion of offshore wind technology in the State. The unit will document New York State’s progress toward its offshore wind development goals and provide stakeholder outreach and technical and pre-development assistance to increase acceptance and reduce soft costs associated with the development of these assets. Additionally, the team will actively execute regular generation project procurements for the State as authorized by the New York State Public Service Commission to acquire offshore wind renewable energy credits (ORECs).

5.15 Clean Transportation

The Clean Transportation unit will develop and implement programs to expand the adoption of clean transportation options in New York State and support the development and demonstration of new clean transportation technologies. The unit will craft innovative approaches to expedite market adoption of electric vehicles and clean mobility options, removing barriers to increased clean transportation use such as cost, awareness, ease of access, and availability of financing. Additionally, the unit will work with public and private partners to develop and demonstrate novel technologies and business models that address key barriers to clean transportation market expansion in NYS.

5.16 Energy Storage

The Energy Storage unit will develop and implement a robust energy storage strategy that removes the most impactful barriers preventing adoption in the electric grid, buildings, and transportation sectors. This will enable renewable generation to be used as “flexible resources,” increase electric system utilization and resiliency, flatten peak demand, and reduce petroleum dependence to help achieve the

State's GHG reduction goals. Initiatives will include targeting soft costs to reduce total installed cost, validating new financing and ownership models, participating in ratemaking and tariff design, removing safety and performance uncertainty, and developing and demonstrating new products and integrated systems—including microgrids. These strategies will be delivered in conjunction with public and private organizations as well as other NYSERDA teams.

5.17 NY-Sun

The NY-Sun unit has a multifaceted approach that aims to lower energy costs for all New Yorkers by increasing solar power capacity and the efficiency and reliability of the electric grid. Public-private partnerships help make installing solar technology more affordable for New Yorkers while scaling up the State's solar industry. In addition to the Solar Electric Program, the NY-Sun initiative has programs to help lower statewide solar soft costs, including training for installers and public officials, a standardized permitting and interconnection process, customer aggregation, and consumer education.

5.18 Technology and Business Innovation

The Technology and Business Innovation unit facilitates the research, development, and commercialization of new and innovative clean energy technologies that when deployed at scale will deliver meaningful reductions in GHG emissions. Technology and Business Innovation employs a comprehensive strategy that integrates and leverages direct investment in startup and established clean energy companies, establishes sustainable multiuse assets in the State, and fully engages important stakeholders such as researchers, established corporate entities, and the investment community. Technology and Business Innovation's direct investments help to determine technical feasibility, assess market opportunities, achieve key product development milestones, and validate new technologies at scale in real-world applications. Strategic investments in statewide multiuse assets provide business incubation, manufacturing support, mentorship, and access to private sector investors and potential development and commercialization partners. Technology and Business Innovation's overall strategy contributes toward the growth of a vibrant clean energy business ecosystem that delivers solutions to the State's pressing environmental, energy, and economic needs.

Technology and Business Innovation has five teams focused on the following areas:

- **Smart Grid Systems and Distributed Energy Integration:** Accelerate the evolution to a smarter more integrated grid that allows for new value-added services in pursuit of efficiency, sustainability, reliability, resiliency, and affordability.

- Renewable Resource Optimization: Accelerate market adoption and realization of grid and consumer benefits from distributed and renewable resources.
- Buildings: Accelerate development of technologies and systems that can enable net zero energy buildings, deep energy efficiency retrofits and smart buildings—providing value and comfort to occupants and owners.
- Innovation Capacity and Business Development: Catalyze and enable a vibrant, self-sustaining cleantech innovation ecosystem that will accelerate the pace and scale of clean energy and make NYS the place for innovation.

5.19 Energy and Environmental Analysis

The Energy and Environmental Analysis unit assists State policy decision-makers and stakeholders by objectively:

- Identifying and evaluating policy alternatives for addressing vital public needs related to the production, delivery, and use of energy as well as development of new technologies.
- Assessing the impact of energy and environmental policies, programs, and technologies on the State’s residents, businesses, environment, and energy systems.
- Providing market intelligence across all energy and fuel types, including all energy systems, market participants, and customer sectors.
- Assessing operational status of energy delivery and fuel storage infrastructure components and advising corrective actions as necessary to expedite return to full operational capacity.
- Assessing retail petroleum fuels and natural gas prices, supplies, and production to enable analyses of and response to market conditions.
- Providing energy-related environmental accountability through analysis of long-term monitoring records and modeling.
- Evaluating the effectiveness of energy-related environmental protection strategies to support regulatory processes.
- Helping prioritize opportunities for mitigation and identifying cross-sector pollution control strategies.
- Coordinating the State's activities on nuclear energy matters, including the regulation of radioactive materials, and monitoring low-level radioactive waste generation and management.
- Fostering informed energy planning through economic analysis and modeling of energy and environmental issues.

5.20 Financing Solutions

The Financing Solutions unit will develop strategies for mobilizing private capital and market-based financing solutions to support scaled investments in clean energy across sectors and technology areas.

NYSERDA, a public benefit corporation, 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. NYSERDA has been developing partnerships to advance innovative energy solutions in New York State since 1975.

To learn more about NYSERDA's programs and funding opportunities, visit nyserda.ny.gov or follow us on Twitter, Facebook, YouTube, or Instagram.

**New York State
Energy Research and
Development Authority**

17 Columbia Circle
Albany, NY 12203-6399

toll free: 866-NYSERDA
local: 518-862-1090
fax: 518-862-1091

info@nyserda.ny.gov
nyserda.ny.gov



State of New York

Andrew M. Cuomo, Governor

New York State Energy Research and Development Authority

Richard L. Kauffman, Chair | Doreen M. Harris, President and CEO