

# Toward a Clean Energy Future: A Strategic Outlook | 2017-2020



NEW YORK  
STATE OF  
OPPORTUNITY.

NYSERDA



# Message from President and CEO John B. Rhodes

New York State is leading the nation with Governor Andrew M. Cuomo's Reforming the Energy Vision (REV) strategy, which has laid the groundwork for a new energy system that is clean, resilient, and affordable for all New Yorkers.

This comprehensive strategy integrates clean energy into the State's electric grid, encouraging private investment and actively deploying effective clean energy solutions across the State.

Governor Cuomo's Clean Energy Standard ensures that 50 percent of electricity in New York State must come from renewable energy resources by 2030. This provides certainty to our partners that New York State's commitment is steadfast in the development of renewable energy. Important to this objective, NYSERDA will continue to support large-scale renewables such as wind, solar, and other clean technologies. This will enable the State to make meaningful progress toward its energy goals.

NYSERDA's Clean Energy Fund, a 10-year, \$5 billion commitment, establishes the next generation of clean energy programs to reduce costs and increase deployment and investment in energy efficiency and clean energy project development. The Clean Energy Fund will help the State achieve four primary outcomes: greenhouse gas reductions, customer energy bill savings, energy efficiency and clean energy generation, and mobilization of private sector capital.

Clean Energy Fund initiatives, including NY Prize, NY-Sun, and NY Green Bank, will help make New York State's communities more sustainable, drive economic growth, and enhance the State's preparedness for extreme weather events or emergencies.

We are engaging with stakeholders, utilities, and partners both in the public and private sectors to increase investment and support innovation in clean energy to meet the State's aggressive energy goals.

NYSERDA is proud to be part of this collaborative, statewide effort. The Strategic Outlook describes our work to spur development of a cost-effective and clean energy system for all New Yorkers, now and in the future.





Credit: NYSERDA



Credit: Tyler Finck



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# About NYSERDA

NYSERDA's mission is to advance innovative solutions in ways that improve New York State's economy and environment.

The New York State Energy Research and Development Authority (NYSERDA) catalyzes investment and innovation in clean energy. Working in partnership with residents, community leaders, business owners, local government officials, and utilities, these investments result in more efficient and comfortable buildings, increased adoption of renewable energy and distributed resources such as solar and wind, and the development of new technologies and services to meet the needs of communities across New York State. NYSERDA's efforts aim to reduce greenhouse gas emissions, accelerate economic growth, and make customer's energy bills more affordable.

Through its efforts, NYSERDA has helped thousands of New Yorkers embrace energy efficiency; enabled development of more than 2,000 MW of renewable energy; led and managed the Regional Greenhouse Gas Initiative (RGGI), the nation's first greenhouse gas cap and trade program, which has resulted in a 40 percent reduction in power sector CO<sub>2</sub> emissions in RGGI states since 2005; catalyzed development of a vibrant cleantech innovation ecosystem in the State; and established the nation's largest green bank.

## VISION

Serve as a catalyst – advancing energy innovation, technology, and investment; transforming New York's economy; and empowering people to choose clean and efficient energy as part of their everyday lives.

## Principles

NYSERDA's strategic approach is guided by the following key principles:

- Design, build, and operate around:
  - Our strategy and the impact that we seek to make.
  - Our customers and partners.
  - Ensuring we are responsive, adaptable, and easy to work with.
- Listen to markets for ideas and insight.
- Innovate and invest based on clear but flexible theories of change and on market and technology savvy.
- Continuously adapt (test, measure, and adjust).
- Manage performance, ensuring that we are getting results and changing course when we are not.

## Role

NYSERDA's role is to work with and through markets to:

- Invest in promising areas where others cannot or do not (yet) invest, helping to accelerate the growth of clean energy.
- Enable greater investment in the clean energy economy from the private sector and from communities by helping them overcome barriers.
- Spur demand and accelerate growth in clean energy through a comprehensive, sustainable, and robust approach.

NYSERDA is a core asset in helping the State to meet the goals outlined in the Reforming the Energy Vision (REV) strategy.



The Avon Central School district's solar array is the largest of any public school system in New York State. The 5,000 solar panels are designed to generate approximately 1.7 million kWh of electricity each year.

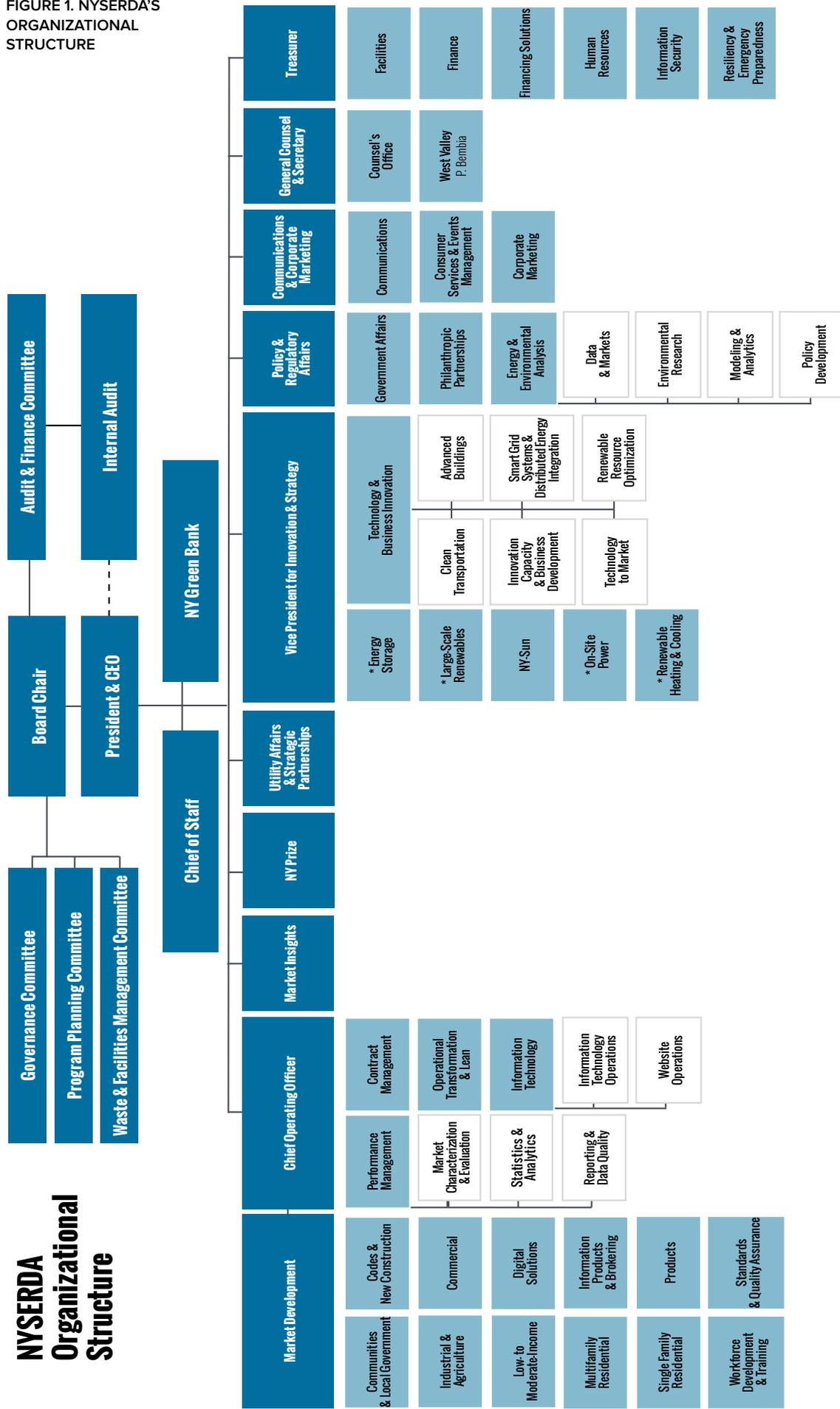
(Source: Avon Central School district – Jim Ellis)

## Corporate Structure

NYSERDA is a public benefit corporation that was created in 1975 under Article 8, Title 9 of the State Public Authorities Law. NYSERDA is governed by a Board consisting of 13 Members, including the Commissioner of the Department of Transportation, the Commissioner of the New York State Department of Environmental Conservation, the Chair of the New York State Public Service Commission, and the President and CEO of the New York Power Authority, who all serve ex officio. The remaining nine members are appointed by the Governor with the advice and consent of the State 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. The Board Chair is designated by the Governor.

NYSERDA's organizational structure is shown in Figure 1.

FIGURE 1. NYSERDA'S ORGANIZATIONAL STRUCTURE



\* While not shown as part of Market Development organization, these areas are included in the Clean Energy Fund Market Development Chapter.

**Governor Cuomo's  
Clean Energy Standard  
ensures that 50 percent  
of electricity in New  
York State will come  
from renewable energy  
resources by 2030.**

# Mission Outcomes

NYSERDA has four overarching Mission Outcomes and associated performance indicators. The four Mission Outcomes are: (1) the efficient use of energy, (2) renewable and diverse energy supplies, (3) a clean energy economy, and (4) a cleaner environment (see Figure 2). These outcomes align with the objectives established under the Clean Energy Fund.

FIGURE 2. NYSERDA'S MISSION OUTCOMES

MISSION OUTCOMES	PERFORMANCE INDICATORS
<p><b>Efficient Use of Energy</b></p> <p>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.</p>	<p>Energy Efficiency (MWh, MMBtu), Bill Savings</p>
<p><b>Renewable and Diverse Energy Supplies</b></p> <p>NYSERDA diversifies New York State’s portfolio of energy resources by accelerating development of renewable and distributed generation resources.</p>	<p>Renewable Energy (MWh, MW)</p>
<p><b>Clean Energy Economy</b></p> <p>NYSERDA catalyzes technology innovation, new business opportunities, and private investment in clean energy in New York State.</p>	<p>Private Investment</p>
<p><b>A Cleaner Environment</b></p> <p>NYSERDA enables markets for new clean energy products and services that can produce meaningful reductions in the environmental impact of energy production and use.</p>	<p>CO<sub>2</sub>e Emissions Reductions (tons)</p>

To ensure progress toward these mission outcomes, NYSERDA will continually assess the ability of each initiative to perform, based on indicators of progress that will be established at the outset of each initiative.<sup>1</sup> This will inform determination of future activities (that is, whether to continue, pivot, or end the initiative).

<sup>1</sup> To see the progress indicators for the current portfolio of initiatives, along with specific performance monitoring plans, please see [nyserderda.ny.gov/About/Clean-Energy-Fund](https://nyserderda.ny.gov/About/Clean-Energy-Fund).

# Strategies

NYSERDA will implement a number of strategies to deliver on New York State's commitment to reduce ratepayer collections, drive economic development, and accelerate the use of clean energy and energy innovation.

**Market Development** initiatives will employ the following strategies to reduce soft costs and other nonmonetary barriers:

- Provide information, data, and education
- Offer technical assistance and provide standardized and simple robust tools
- Provide quality assurance
- Pilot, demonstrate, and replicate proven new technologies and business models
- Enable aggregation of different customer types

**Innovation and Research** initiatives will catalyze a vibrant cleantech industry in New York through investment in five key opportunity areas:

- Smart Grid Technology
- Renewables and Distributed Energy Resources
- High Performance Buildings
- Clean Transportation
- Cleantech Start-up and Innovation Development

Strategies will include direct assistance to cleantech companies, technology derisking in the marketplace, and development of the clean energy innovation infrastructure and networks in New York.

## STRATEGY DEVELOPMENT AND RESOURCE ALLOCATION

NYSERDA has implemented a new process for developing specific strategies and allocating resources based on a clearly defined market need and impact, with the following steps using a stage-gate approach:

- Idea Generation
- Scope Concept
- Build the Business Case
- Proof-of-Concept
- Develop Plan
- Build-Buy-Launch

This approach ensures that NYSERDA addresses a number of key questions to understand the market and develop strategies. A starting point is to assess why a problem is not being solved by other market participants; evaluating what NYSERDA is uniquely qualified to provide to address it, and through what mechanisms; and sizing the potential impact of a successful initiative in terms of NYSERDA's Clean Energy Fund goals. Defining the relevant market for a strategy involves understanding the set of transactions or decisions that NYSERDA is seeking to impact and mapping the market participants who are making or influencing those decisions, from upstream players to end customers. This helps identify the primary customers for a NYSERDA offering who often will be upstream market partners who have skills or distribution channels that are essential to bringing clean energy products to market.

To understand customer decision-making, NYSERDA interviews market participants and seeks to quantify the elements of value (such as product benefits, new capabilities enabled, costs avoided, and risk reduction) that the customer is seeking to meet their needs. This equips NYSERDA to thoughtfully consider and quantify how NYSERDA's intervention will provide net benefit to a customer who chooses a clean energy solution, relative to a status quo alternative. It also allows NYSERDA to work toward market segmentation that is based on customer needs, and to ask how to focus and deploy specific initiatives to specific customer types. Answering the question "what is the value proposition?" for an offering for a target market segment provides a working (and testable) hypothesis of how NYSERDA's intervention will bring value to the customer and enable transactions that would not otherwise occur. It also points to how NYSERDA will enable sustainable change after it exits the market.

This iterative process of scoping, building, and testing strategies will help increase NYSERDA's impact by better defining the markets we intend to impact, understanding the needs and economics of the market players whose choices we seek to change, segmenting the market to provide specific initiatives for specific customer types, and developing compelling value propositions for the segments we target. NYSERDA will track the pipeline of strategies in development, comparing their potential return on a dollars-per-ton-of-CO<sub>2</sub> basis, to ensure that the most effective strategies are moving forward.

## Planning for the Future

This section provides an overview of the broader context for NYSERDA's activities, including key policies, initiatives, and planning efforts that help drive and shape NYSERDA's actions over the planning period.

### Reforming the Energy Vision (REV)

The 2015 New York State Energy Plan advanced Governor Cuomo's strategy to build a clean, resilient, and affordable energy system for all New Yorkers, known as Reforming the Energy Vision, or REV. REV envisions a transformed New York State energy policy and marketplace, placing energy efficiency and clean, locally produced power at the core of the State's energy system. REV puts customer needs and values in the forefront, and challenges all State agencies and service providers to design products, services, and initiatives to provide the value and services that consumers will demand in a new energy services landscape. The New York State Energy Plan advanced three Clean Energy Goals to be achieved by 2030:

**40%**  
**Reduction**  
in greenhouse gas emissions  
from 1990 levels

Reducing greenhouse gas emissions from the energy sector—power generation, industry, buildings, and transportation—is critical to protecting the health and welfare of New Yorkers and reaching the longer term goal of decreasing total carbon emissions 80 percent by 2050.

**50%**  
**Generation**  
of electricity must come  
from renewable sources

Through Governor Cuomo's aggressive Clean Energy Standard commitment, renewable energy sources, including solar, wind, hydro-power, and biomass, will play a vital role in reducing electricity price volatility and curbing carbon emissions.

**23%**  
**Decrease**  
in energy consumption in  
buildings from 2012 levels

Energy efficiency results in lower energy bills and is the single most cost-effective tool in achieving New York State's greenhouse gas reduction objectives. A 23 percent decrease from 2012 levels is equivalent to 600 trillion British thermal units (Btu) of energy efficiency gains. That's equal to more energy than all New York State homes use in six months.

In 2016, several important orders were passed as part of the Public Service Commission's REV Regulatory Docket, and which provides a framework in which NYSERDA actions will operate over the next several years.

- A January 21, 2016 Order established a Benefit-Cost Analysis framework that provides the methodology to evaluate distributed energy resource alternatives. Importantly, the Benefit-Cost Analysis framework utilizes a societal test that incorporates the value of environmental impacts into utility system planning and decision-making.
- A May 2016 Order established a framework for new utility ratemaking and shifting away from the century-old cost-of-service ratemaking approach. This shift will be foundational to creating an energy services market where third party energy providers will be able to innovate and provide energy and other services, meeting both customer values while advancing more efficient use of electric utility systems. The first stage to implement the new framework and approach will come with the utility Distributed System Implementation Plans, which describe the utility approach to integrated planning, investment and operations.

REV is advancing on the ground through demonstration projects in each of the investor-owned utility service territories, testing how new business approaches are able to attract consumer attention and demonstrate value. NYSERDA will help to ensure the results of the demonstrations can be widely understood and perhaps be applied in multiple service territories through the initiation of the REV Connect initiative.

## Clean Energy Standard

In response to the goals established in the New York State Energy Plan, Governor Cuomo directed the Department of Public Service to develop a Clean Energy Standard, converting the 50 percent renewable energy goal of the New York State Energy Plan into mandated requirements on energy purchases. In August 2016, the Public Service Commission issued an Order with four principal policy objectives of the Clean Energy Standard:

- Increase renewable electricity supply to achieve the 50 percent of electricity generation from renewable energy goal
- Support construction of new renewable generation in New York State
- Prevent premature closure of upstate nuclear facilities
- Promote the progress of REV market objectives

The approved Order outlines the mechanisms on how both new renewable energy facilities will be built in New York State, as well as support for nuclear facilities that provide greenhouse gas emission benefits, but for which those benefits are not adequately reflected in wholesale energy prices. To support renewables expansion and development, load-serving entities will be obligated to purchase, on behalf of their customers, Renewable Energy Credits, also known as RECs, according to minimum percentages that will increase each year to advance towards achievement of the "50 by 30" goal. This would approximately double the proportion of electricity coming from renewable resources today.

To support the zero-emission nuclear facilities, the Clean Energy Standard creates Zero Emission Credits, also known as Zero Emission Credits, similar to, but in separate obligation from, the requirement to purchase Renewable Energy Credits on behalf of customers. The Commission also requires load-serving entities to purchase Zero Emission Credits on behalf of customers. The amount of Zero Emission Credits necessary to meet this obligation will be determined by DPS, based on the anticipated output of the eligible facilities, in an effort to ensure that energy consumers realize the value for the Zero Emission Credit price.

A cost study completed for the Clean Energy Standard found that even with historically low natural gas prices, New York State can achieve the Clean Energy Standard with less than a 1 percent impact on electricity bills in the near term, and shows a net positive benefit of \$1.8 billion by 2023.

AXYS FLiDAR buoy  
for offshore wind  
Credit: AXYS Technologies



NYSERDA will assume new roles and responsibilities with the Clean Energy Standard. Designing and executing the Clean Energy Standard with REV principles in mind will be a priority for NYSERDA over the planning horizon. First among these responsibilities will be to oversee the phased implementation of the Clean Energy Standard, including design, execution, and administration of the program. NYSERDA's specific roles in the future will include:

- **Procurement of Renewable Energy Credits:** NYSERDA will issue competitive solicitations for long term contracts that will generate new Renewable Energy Credits. The solicitations will increase in scale over time, starting at a level of approximately four times the 2016 Renewable Portfolio Standard Main Tier solicitation.
- **Procurement of Zero Emission Credits:** NYSERDA will enter into agreements with operating nuclear facilities to procure Zero Emission Credits.
- **Disposition of Renewable Energy Credits and Zero Emission Credits:** NYSERDA will sell procured Renewable Energy Credits and Zero Emission Credits several times per year, to ensure the availability of these instruments to approximately 200 load-serving entities, for use in compliance with Clean Energy Standard program requirements.
- **Manage complementary policies and programs** that will help realize the success of the Clean Energy Standard, including advancement of an Offshore Wind Master Plan, continued implementation of Clean Energy Fund initiatives that can reduce soft costs, and continue to improve the Clean Energy Standard program design as markets develop and as markets for voluntary renewable purchases by customers accelerate.
- **Manage New York Generation Attribute Tracking System**, including eligibility rules, report generation, compliance verification, and banking. New York Generation Attribute Tracking System will issue and track electronic certificates recording the generation attributes associated electricity.

## Offshore Wind

Offshore wind represents an essential renewable energy resource for New York State toward achieving its New York State Energy Plan targets and Clean Energy Standard mandate that half of New York State's electricity will come from renewable resources by 2030. According to the National Renewable Energy Laboratory, New York State has 39 gigawatts of offshore wind capacity potential between 12 and 50 nautical miles from its shores and in waters less than 200 feet deep, where the turbines would have minimal visual impact and can utilize proven bottom-fixed technology. However, the costs of offshore wind have limited development in the U.S. For offshore wind to be a viable solution for New York State at scale, market barriers including costs must be reduced. NYSERDA has a number of complementary offshore wind initiatives to facilitate the development of offshore wind for New York State.

The first Offshore Wind Master Plan for New York was called for by Governor Cuomo in his 2016 State of the State address. The plan will provide a comprehensive State roadmap for advancing development of offshore wind in a cost effective and responsible manner and will coordinate all involved agencies including Department of Environmental Conservation, Department of State, Department of Public Service, and NYSERDA. The plan will include: (1) stakeholder engagement; (2) site identification and leasing strategies; (3) site assessment and site characterization data; (4) cost, benefit, interconnection, and other studies; and (5) analysis of energy offtake mechanisms to support for ongoing Public Service Commission proceedings. The Offshore Wind Master Plan is expected to be complete by the end of 2017.

Other initiatives include offshore wind pre-development activities. Targeted pre-development initiatives including in-field resource assessment, baseline environment studies, and site characterization, will reduce overall project and ratepayer costs for New York offshore wind sites. The data from this pre-development work will be disseminated to the market in order to reduce project risks and overall development costs and increase interest and competition to develop New York offshore wind sites at the lowest possible price. Initial data from this pre-development work will also be used to assist in identifying additional wind energy areas in the Offshore Wind Master Plan.

NYSERDA will also participate in the The Bureau of Ocean Energy Management (BOEM) New York State Wind Energy Area Auction. BOEM has awarded nine offshore wind energy area leases through a competitive lease sale process and is planning an auction for a New York State wind energy area before the end of 2016. In June, NYSERDA announced it would participate in the BOEM auction for the New York State wind energy area. If NYSERDA wins the auction, it will be able to lead the development and timing of the site's progress, ensuring that any project will be developed at the lowest possible cost for electricity consumers while protecting the environment. NYSERDA's pre-development activities will produce environmental studies and a resource assessment and site characterization for the New York State wind energy area. NYSERDA will then package this work with a power purchase mechanism and select a project developer through a competitive process. This strategy minimizes project risks and provides developers certainty to secure financing, maximizing competition, and ultimately lowering project costs for consumers. This packaging strategy will be part of the Offshore Wind Master Plan and may be replicated for other areas identified in the plan.

## Clean Energy Fund

On January 21, 2016, the Commission approved NYSERDA's Clean Energy Fund, the next generation of NYSERDA clean energy programs. The Clean Energy Fund will support REV and the Clean Energy Standard by influencing the market to advance clean energy products and services at levels of scale to advance the New York State Energy Plan clean energy goals. The Clean Energy Fund will be implemented through four portfolios of activity: Market Development, Innovation and Research, NY-Sun, and NY Green Bank. The Clean Energy Fund provides a new purpose and a new foundation for NYSERDA program activity. Over the next three years, this activity will focus on transitioning from long-established approaches to market support that will be picked up by utility-based programs, and begin to fashion market interventions that will complement the utility programs by making it easier for energy service providers and energy consumers to deliver and demand cleaner and more affordable energy services.

The transition to the Clean Energy Fund started with NYSERDA's February 2016 issuance of the Resource Acquisition Transition chapter of the Clean Energy Fund, which details the programs intended to maintain market activity as the Clean Energy Fund gradually moves to new market interventions. NYSERDA also filed a Market Characterization and Design chapter in April, which lays out the market analysis and evaluation activities that will support the development and assessment of new market transformation focused initiatives. Also in April, NYSERDA filed the first set of Investment Plans for market transformation interventions. As new initiatives are designed and developed, additional investment plans will be filed in the continuous effort to capture opportunities as they emerge and to increase the impact of the Clean Energy Fund over time.

## Other Federal, Regional, and Local Policy Drivers

While pursuing its own policy priorities, New York State will also assess advancements in national, regional, and local policy and their impact on the State and to leverage these activities to more effectively attain the State clean energy goals. Key among national policy advancements will be completion of the U.S. Environmental Protection Agency Clean Power Plan regulations, proposed pursuant to Section 111(d) of the Clean Air Act, and which establish CO<sub>2</sub> emission guidelines for existing electric power plants. The final rule was released August 3, 2015. NYSERDA will engage with State agency partners to craft an appropriate implementation strategy that meets new regulatory requirements, which will include exploring the existing Regional Greenhouse Gas Initiative to meet the Clean Power Plan requirements. Although the Clean Power Plan is currently subject to stay in its implementation, New York and many other states continue to prepare compliance strategies pending the final determination on the regulations by the federal court.

At the regional level, New York State is involved in efforts that are helping to support the clean energy economy, including Regional Greenhouse Gas Initiative and the northeastern Transportation and Climate Initiative. Additionally, in efforts to develop offshore wind, NYSERDA and New York State will also seek multistate collaboration to enhance the attractiveness of offshore wind to developers, build needed supply chains, and improve overall development economics.

Local governments are becoming the front line for clean energy implementation and citizen engagement. In efforts to advance individual environmental objectives, local governments are partly reinventing themselves as procurement agents for residents interested in collectively investing in clean energy and resilient energy alternatives. NYSERDA will seek to help localities realize their own objectives. NYSERDA will seek to engage communities and local governments to help reveal the value in new energy options, and seek to springboard from platforms that localities can create to touch larger and more varied audiences with clean energy options.

**The Clean Energy  
Fund will support REV  
and the Clean Energy  
Standard by influencing  
the market to advance  
clean energy products  
and services at levels  
of scale.**

# Investment Areas and Priority Initiatives

This section presents NYSERDA's complementary strategies to increase demand and scale up clean energy. The section also highlights several high potential initiatives.

NYSERDA programs are organized into eight investment areas and priority initiatives, including:

- Market Development
- Innovation and Research
- NY Green Bank
- NY-Sun
- NY Prize
- Energy Data, Planning, and Policy
- Energy Emergency Preparedness
- West Valley

Each area encompasses a set of complementary strategies to impact a specific component of the clean energy market. NYSERDA's approach will increase demand for clean energy and enable scale by removing market barriers, animating markets, and influencing changes in policies, codes, and regulations.

## Market Development

*Facilitating the clean energy market with on-site, "behind the meter" clean energy solutions – energy efficiency, distributed generation, and energy storage – and supporting growth of large-scale renewables.*

NYSERDA will focus resources on sectors, energy applications, and business models with the highest probability of driving clean energy adoption. NYSERDA will employ the following strategies to reduce soft costs and other nonmonetary barriers:

- Provide information, data, and education for customers and service providers to raise awareness and demand, reduce customer acquisition costs, train clean energy workforces, and improve customer confidence.
- Offer technical assistance and provide standardized and simple, robust tools for clean energy partners, including service providers, contractors, and energy-decision makers such as code officials and local government leaders to lower soft costs and address implementation constraints.
- Provide quality assurance for proposed clean energy solutions and deliver performance validation, monitoring, and verification of new clean energy technologies to improve customer confidence.
- Pilot, demonstrate, and replicate new technologies and business models to advance innovative, scalable, and cost-effective solutions.
- Enable aggregation of different customer types (e.g. residences, municipalities, businesses, real estate portfolios) to reduce costs through economies of scale and leverage peer pressure to break through inertia.

In addition to the strategies above, NYSERDA will advance initiatives that will enhance access to and uptake of clean energy solutions for low- to moderate-income (LMI) households and communities to enable New York State to meet its ambitious clean energy, environmental, and affordability goals.

## Clean Energy Communities

Clean Energy Communities is an initiative to help local governments across the State reduce energy consumption and drive clean energy use in their communities. Cities, towns, and villages that complete at least four of the 10 high-impact clean energy actions identified by NYSERDA will be designated Clean Energy Communities. These communities will become eligible to apply for grants to support additional clean energy projects.

A key objective of Clean Energy Communities is to harness the capabilities of local governments to motivate their communities and accelerate local energy-saving and renewable energy projects, such as solar and wind. The communities' actions will help them meet their sustainability, climate, and energy goals while contributing to the State's efforts to meet the Clean Energy Standard goal of 50 percent of electricity from renewable sources by 2030.

The high-impact actions that local officials can take with NYSERDA and other State support through the program include:

- Benchmarking energy use at municipal and large privately owned buildings
- Performing energy efficiency and renewable energy upgrades to municipal buildings
- Replacing street lights with energy-efficient LED lighting
- Streamlining local approval processes for solar projects through adoption of the New York State Unified Solar Permit
- Undertaking a community-based Solarize campaign to reduce solar project costs through joint purchasing
- Providing energy code enforcement training to code officers
- Earning Climate Smart Communities Certification by reducing the community's impact on the environment
- Passing a local law to allow aggregation of residents to gain greater choice and control over energy use as a group (Community Choice Aggregation)
- Installing electric vehicle charging stations and using alternative fuel vehicles, such as hybrid and electric cars, for municipal businesses
- Establishing an Energize NY Finance Program that enables long-term, affordable Property Assessed Clean Energy financing for energy efficiency and renewable energy projects at commercial buildings and not-for-profits

As communities complete high-impact actions and achieve the Clean Energy Communities designation, they demonstrate the benefits of such investments to their peers and encourage replication throughout neighboring communities and across the State.

# Innovation and Research

*Accelerating and catalyzing valuable innovations that will create low-greenhouse gas solutions, system and customer benefits, and a vibrant clean energy industry in New York State. These activities also provide objective information on the environmental impacts of energy technologies, helping to inform policy making and identify strategies to mitigate environmental impacts.*

Innovative solutions are needed to address New York's most pressing energy and environmental challenges. To address these long-term challenges, NYSERDA supports technology research and development, commercialization of new technologies and innovative business models, and emerging businesses developing clean energy products and services in New York State. NYSERDA is building the capacity for cleantech innovations through scalable model initiatives that the private/institutional sector can ultimately sustain.

NYSERDA's approach to cleantech innovation will: (1) focus on high-impact strategic priorities (such as opportunities with high greenhouse gas emissions reduction potential) while maintaining the flexibility to explore emerging prospects, (2) embrace a stronger focus on business development in conjunction with technology development, and (3) use rigorous portfolio management.

## **NYSERDA's strategic priorities for technology and business innovation include:**

- **Smart Grid Systems** — accelerating the evolution to a more advanced, integrated grid that enables new, value-added services in pursuit of efficiency, sustainability, reliability, affordability, and REV objectives.
- **Renewables and distributed energy resource Integration** — accelerating market adoption and realization of grid and consumer benefits from distributed and renewable resources.
- **Buildings Innovation** — creating technologies and systems that can enable zero net energy buildings, deep energy efficiency retrofits, and smart buildings, which provide value and comfort to occupants and owners.
- **Clean Transportation** — accelerating movement toward efficient, low-greenhouse gas emissions transportation systems that enhances the quality of life in communities across New York State.
- **Innovation Capacity and Business Development** — catalyzing a vibrant self-sustaining cleantech innovation ecosystem that accelerates the pace and scale of innovation in New York State and makes it the place for energy innovation.

## **Impact of Clean Energy on Wildlife**

In addition to efforts to advance clean energy technology, energy-related environmental research will also be supported. This work will provide the foundation for ensuring that New York State meets its clean energy goals by guiding cost-effective greenhouse gas mitigation and climate adaptation strategies. Environmental research and analysis informs State and federal energy and environmental policies, provides environmental accountability, examines the health and ecological co-benefits of alternative energy and technology solutions, and guides emerging energy technologies and systems. This research and analysis facilitates their entry into New York State's generation mix and contribution to the diversification of energy resources.

## Grid Modernization

NYSERDA is taking a number of actions to drive New York State's long term grid modernization efforts. This initiative will work in partnership with the utilities and grid technology vendors to derisk smart grid technology and develop tools to enable REV. Focus areas will include enhanced grid visualization (advanced sensing, communications, diagnostics and controls), planning and operational processes, and advanced materials that accelerate realization of an innovative, digitally enhanced and dynamically managed high-performing electric grid, the attributes of which are essential to meeting the transformational goals outlined in the REV initiative and New York State Energy Plan.

One key goal is the increased deployment of clean distributed energy resources. NYSERDA launched a distributed energy resource Interconnection investment program in early 2016, tied specifically to accelerating technology innovation to make distributed energy resource interconnection less costly and burdensome.

These initiatives build upon NYSERDA's historic accomplishments in grid innovation and include innovation that focuses on dynamically integrating distributed energy resources, including electric vehicles and storage into the electric power system. A more dynamically managed grid is expected to result in increased grid capacity to expand the use of clean distributed energy resources, a necessary component of a comprehensive strategy to achieve New York State Energy Plan greenhouse gas reduction goals. A dynamically-managed grid will reduce the need for capital investment in grid infrastructure and improve affordability. Such a grid will enable more efficient asset utilization (e.g., reduced operating margins, reduced power demands, reduced energy losses), reduced energy costs, improved reliability and resiliency to climate change induced weather events.

Together, these grid modernization initiatives will create an environment where customers are empowered to more efficiently manage and consume electricity in partnership with their utility and third parties. These initiatives are designed to complement other activities under NYSERDA management, including the NY Prize Community Microgrid Competition and the REV Connect program, both focused on creating viable projects that partner innovative technologies, utilities, and customers to demonstrate various REV principles.

# NY Green Bank

*NY Green Bank is a specialty finance entity working in collaboration with the private sector to increase investments in New York State's clean energy markets.*

**NY Green Bank works to increase the size, volume, and breadth of clean energy investment activity throughout the State, expand the base of investors focused on clean energy in New York State and increase access to capital for clean energy participants.**

NY Green Bank was established to attract private sector capital into, and accelerate, clean energy deployment in New York State. NY Green Bank works to increase the size, volume, and breadth of clean energy investment activity throughout the State, expand the base of investors focused on clean energy in New York State and increase access to capital for clean energy participants. To do so, NY Green Bank collaborates with the private sector to develop transaction structures and methodologies that overcome typical clean energy investment barriers, such as challenges evaluating risk and addressing the needs of distributed energy and efficiency projects where underwriting may be geared more toward large and/or groups of somewhat homogeneous investment opportunities.

NY Green Bank focuses on opportunities that create attractive precedents, standardized practices and roadmaps that capital providers can willingly replicate and scale. As funders “crowd in” to a particular area within the clean energy landscape, NY Green Bank moves on to other areas that have attracted less investor interest.

NY Green Bank is intended to be self-sustaining and leverage public dollars with private capital in the deployment of clean energy in New York State, with all the corresponding benefits. Central to achievement of these objectives is NY Green Bank's ability to efficiently recycle funds. Unlike a pool of public funds that is dispensed once to qualifying projects as grants or subsidies, funds entrusted to NY Green Bank are disbursed under commercial arrangements generating investment income and requiring repayment in accordance with agreed terms for each product and counterparty project. This means that as each dollar from NY Green Bank cycles through successive investments, those dollars will continue to generate additional clean energy benefits from new projects. Further, as the commercial markets expand into and increasingly accommodate clean energy finance needs previously supported by NY Green Bank, the multiplier effect on its investments will continue. These factors combine to motivate faster and more extensive implementation of clean energy investments within NYS, fostering greater energy choices, reduced environmental impacts, and more green energy benefits per public dollar spent for all New Yorkers.

Visit [www.greenbank.ny.gov](http://www.greenbank.ny.gov) for detailed information on all aspects of NY Green Bank, including its growing investment portfolio, request for investment proposals, business plan, financial statements, and metrics reports.



Solar installation at Cornell University.

Source: NYSERDA

## NY-Sun

*NY-Sun is an initiative to develop a sustainable and subsidy-free solar industry.*

NY-Sun aims to add more than three gigawatts of installed solar capacity in the State by 2023, equivalent to adding enough solar energy to power 400,000 homes. It embraces Market Development strategies and provides a comprehensive approach to overcoming barriers.

A key component of NY-Sun is a declining incentive program that reduces project incentives in transparent and predictable ways through a Megawatt-block structure. This approach provides certainty regarding the value of incentive to be received, and allows different incentives and block sizes in different regional markets. The Megawatt-block program is supplemented by new initiatives to improve access including:

- The K-Solar program, which helps schools install solar
- The Affordable Solar program, which provides low- to moderate-income residents with assistance to develop solar projects
- The Shared Solar program, which helps renter, residents who can't put solar on their roofs, and others benefit from solar
- The Solarize program, which helps communities buy in groups for the most competitive pricing

NY-Sun also provides consumer education on solar panel systems and their characteristics, as well as information on the variety of purchase and leasing options in the market. Additional components focus on workforce training and reducing installation soft costs, including streamlining the inspection and permitting process.

NY-Sun is driving growth of the solar industry and making solar technology more affordable for all New Yorkers, and will provide long-term program certainty to solar panel system developers, attract significant private investment, create well-paying jobs, and reduce air pollution.



Buffalo, NY

Source: City of Buffalo

## NY Prize

*Advancing a first-in-the-nation approach to help communities create microgrids – standalone energy systems that can operate independently in the event of a power outage.*

NY Prize is a key component of the statewide endeavor to modernize New York State’s electric grid, spur innovation, and facilitate solutions to energy needs through community partnerships with utilities, local governments, and the private sector. NY Prize strives to enable the technological, operational, and business models that will help communities reduce costs, promote clean energy, and build reliability and resiliency into the grid. Through NY Prize, NYSERDA supports the development of feasibility assessments and detailed engineering and business plans of microgrid proposals. NY Prize funding will ultimately support the construction of five to seven community grid projects. Once installed, these clean energy systems will enable communities to maintain electricity during extreme weather events and emergencies while providing tools for customers to manage their energy use.

Additionally, NYSERDA will continue to support deployment of distributed energy solutions including CHP (combined heat and power) systems that can alleviate bottlenecks in specific grid locations and be used to provide power during electric outages at critical health and safety locations and facilities of refuge. NYSERDA will also develop and deploy energy storage systems, including integration with renewable energy and building management systems. These systems increase the resiliency of buildings by managing disruptions in the electric grid including ride-through capabilities. The systems also provide critical load flexibility that will be needed to enable the smart grid of the future. Many of these systems are expected to be critical parts of community microgrids.

**Local governments  
are becoming the  
front line for clean  
energy implementation  
and resident engagement.**

# Energy Data, Planning, and Policy

*Ensuring that New York State policymakers and stakeholders have a solid foundation of objective information and data upon which to make decisions.*

NYSERDA supports a spectrum of activities designed to analyze statewide energy policy options as well as inform NYSERDA clean energy investment strategies and programs in an evolving energy landscape. NYSERDA plays a leadership role in developing the New York State Energy Plan, including the development of economic analysis and modeling of energy and environmental issues, all of which inform the direction of policies advanced in the Plan. NYSERDA will also be supporting REV with critical analytical studies to inform the development of competitive markets and pricing structures, potential new tariff designs, and financial models of electric utilities of the future.

New York State is engaged in a process to foster innovation in the development of the electricity system at both the bulk and distributed levels. To support this process, NYSERDA will build on past bulk system modeling efforts to engage in the development of complementary distribution system modeling and analysis capabilities. In the near-term, New York State needs to better understand the impact of different deployment levels of distributed energy resources on the electricity grid. In the long-term, New York State will benefit from an understanding of how policy objectives and system requirements (provision of reliable energy services) could be met on a least-cost basis. New or revised modeling capabilities will be investigated to support these objectives.

In 2017-2020, this process will also involve the pursuit of tools for determining the full (potential) value of distributed energy resources, on a time and location specific basis, as well as tools to enable system optimization. New modeling approaches will help to optimize investments in distribution system components, solving for least cost to ratepayers while maximizing system performance and efficiency.

NYSERDA will also oversee the phased implementation of the Clean Energy Standard, including design, execution, and administration.

# Energy Emergency Preparedness

*Preparing and protecting New Yorkers with adequate fuel availability during and after emergency situations in New York State.*

NYSERDA is a statutory member of the New York State Disaster Preparedness Commission, which develops disaster preparedness plans to address disaster prevention, response and recovery, and collectively comprise the elements of the State's Comprehensive Emergency Management Plan. The Comprehensive Emergency Management Plan includes specific technical annexes. NYSERDA is responsible for the annual update to the New York State Energy Emergency Plan. In these coordinated activities, NYSERDA's role primarily centers on liquid fuels (including gasoline and heating oil), emergency planning, and response activities. NYSERDA also has nuclear responsibilities, including monitoring and responding to emergency situations at nuclear power plants, participating in emergency planning exercises, and monitoring generation and management of low-level radioactive waste.

The Energy Emergency Plan coordinates several State agency actions in planning and responding to various energy sector situations and provides guidance to the coordinating agencies when they are acting through the New York State Disaster Preparedness Commission. In the liquid fuels area, NYSERDA's responsibilities primarily concentrate on providing advance notice of constraints in fuel supplies, which may lead to shortages of fuels in areas of the State, or across New York State generally. Such actions also include advising the Governor and providing recommendations for energy emergency declarations that can institute available emergency response strategies and options that engage energy suppliers, energy users, and all levels of government to allow necessary preparations before an actual emergency occurs and to facilitate emergency response and recovery after an emergency incident occurs. To help with recovery activities, such strategies can include seeking short-term waivers for fuel content specifications and distribution controls to maintain levels of fuel during recoveries, as well as demand control mechanisms that help to provide adequate and orderly supplies to the economy.

After Superstorm Sandy, Governor Cuomo advanced the Fuel NY initiative to further protect the availability of fuel from the pipeline to the pump. Two key initiatives of Fuel NY include the Strategic Fuel Reserves and the Gasoline Station Generator Program. Housed in locations throughout the State for fast response, the Strategic Fuel Reserves serve as a first-in-the-nation State-based fuel resource that is designed to mitigate distribution disruptions gasoline and diesel fuels during declared emergencies and fill gaps in the fuel supply chain until the system recovers from the disruption. Upon declaration of an energy supply emergency, NYSERDA can authorize the sale of fuel from the Strategic Fuel Reserves to suppliers and distributors to provide fuel for emergency responders, municipal and governmental customers, and retail outlets as determined for the emergency event. The Gasoline Station Generator Program ensures that critical gas stations have back-up power capacity, making it possible to dispense fuel to help with response activities and to help restore normalcy as quickly as possible after a major storm or other emergency. NYSERDA will deploy portable generators to strategically located gas stations in Nassau, Suffolk, Rockland, Westchester, Bronx, Kings, Queens, Richmond, and New York counties, and works to ensure that these gas stations are operational to provide gas to first responders, emergency workers, and community residents. Fuel NY also provides grants to offset the implementation costs associated with the electrical modifications and installation of permanent emergency generators at the most strategic retail gas stations in the downstate region.



Providing fuel in an emergency situation.

Credit: New York National Guard

**West Valley  
Demonstration  
Project has  
solidified  
600,000  
gallons of  
liquid high-level  
radioactive waste  
by making it into  
275  
“canisters” of glass.**

## West Valley

*NYSERDA’s activities at West Valley support the cleanup of the West Valley Demonstration project, while ensuring the protection of public health, safety, and the environment.*

NYSERDA holds title to the 3,300-acre Western New York Nuclear Service Center (Center) on behalf of New York State. The Center is the site of a former plant for the reprocessing of spent nuclear fuel from nuclear power plants and federal facilities. It was established in the 1960s in response to a federal government call to commercialize the reprocessing of spent fuel from nuclear power reactors. The Center is located near the hamlet of West Valley, in the town of Ashford in Cattaraugus County.

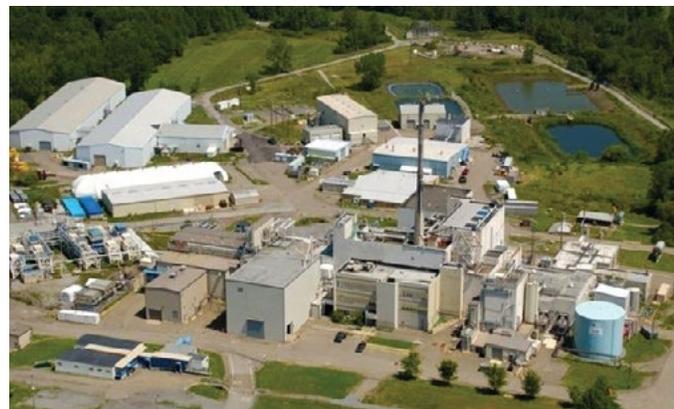
The reprocessing plant was operated by a private company from 1966 until 1972, when it was shut down for modifications. Four years later, the company announced it would not resume reprocessing, and intended to transfer the facilities to NYSERDA, including underground high-level radioactive waste tanks, highly contaminated buildings, radioactive water lagoons, two radioactive waste disposal areas, and a groundwater contamination plume. In 1980, the U.S. Congress enacted the West Valley Demonstration Project Act, which directed the U.S. Department of Energy to conduct the West Valley Demonstration Project, a high level radioactive waste solidification and decommissioning demonstration project at West Valley in cooperation with NYSERDA. Under the West Valley Demonstration Project Act, U.S. Department of Energy pays 90 percent of the costs, and the remaining 10 percent is paid by NYSERDA.

Today, U.S. Department of Energy has possession of approximately 200 acres of the Center to conduct the West Valley Demonstration Project. NYSERDA’s West Valley Site Management Program is responsible for representing NYSERDA in the West Valley Demonstration Project, and managing the remaining 3,100 acres of the Center, including the State-Licensed Disposal Area, a 15-acre radioactive waste disposal facility. Key accomplishments of the West Valley Demonstration Project to date include solidifying the 600,000 gallons of liquid high-level radioactive waste by making it into 275 “canisters” of glass, installing measures to mitigate the spread of a groundwater plume, and removing tanks, vessels, and miles of piping from the highly contaminated buildings to prepare them for demolition.

### **NYSERDA’s key priorities for the West Valley Site Management Program for 2017-2020 include:**

- Managing the State-licensed Disposal Area and the Retained Premises of the Western New York Service Center in a manner that protects the environment, the health and safety of the public and workers, and remains in compliance with all applicable regulations. Safety, environmental protection and compliance with all regulations will continue to be NYSERDA’s top priorities for the West Valley Site Management Program.
- Representing NYSERDA’s interests in the West Valley Demonstration Project, with particular focus on issues related to public and worker safety, protection of the environment, and the effective use of public funds. West Valley Site Management Program staff will continue to work closely with U.S. Department of Energy at the Center to monitor West Valley Demonstration Project activities and progress and will provide a clear voice to represent NYSERDA’s interests in the West Valley Demonstration Project.

- Advocating for federal government recognition of the defense origin and use of the nuclear materials processed and recovered at West Valley. Although U.S. Department of Energy considers West Valley's radioactive waste to be "commercial" in origin, there are clear ties between the West Valley reprocessing operation and the Nation's nuclear weapons complex. Federal government recognition of the defense nature of the West Valley reprocessing activities will open a path for the disposal of West Valley's transuranic waste and will allow the federal government to bear the fee for disposal of the West Valley solidified high-level radioactive waste.
- Preparing a technically defensible Supplemental Environmental Impact Statement to make Phase 2 decommissioning decisions for the Center by 2020. Although significant decommissioning work is being conducted at the site today, decommissioning decisions have not yet been made on several important facilities. A Supplemental Environmental Impact Statement will inform NYSERDA and U.S. Department of Energy of potential environmental impacts from the proposed alternatives for addressing the HLW Tanks, the State-licensed Disposal Area, the Nuclear Regulatory Commission-licensed Disposal Area, and the main body of the radioactive groundwater plume.
- Maintaining open communications with stakeholders, including residents, elected officials, environmental group representatives, and the West Valley Citizen Task Force, and work with the local community to evaluate opportunities for beneficial uses for the Center property. NYSERDA will continue to work to be a good neighbor and keep a positive relationship with the West Valley stakeholders, including the local community, West Valley Citizen Task Force, environmental groups, and others. NYSERDA will also continue to work closely with the local community to address community concerns and evaluate potential beneficial reuses of the Center property.
- Positioning the Nuclear Regulatory Commission License for the Center to remain in conformance with evolving site conditions through decommissioning. The Center has gone through many changes and phases of work activities over the last 50 years, from reprocessing operations in the 1960s to decommissioning operations today. Keeping the Nuclear Regulatory Commission License current with changing site activities and operations will allow current work to continue efficiently, and allow more effective planning for the completion of decommissioning activities.
- Remaining a strong advocate for federal funding for the West Valley Demonstration Project with both U.S. Department of Energy and Congress. The federal appropriation for the West Valley Demonstration Project has been decreasing – from a level of about \$80 million a decade ago, to about \$60 million today. Maintaining or increasing the federal funding level will avoid lengthening the time for completing the project and increasing the total project cost to State and federal taxpayers.



West Valley Demonstration Project.

Credit: NYSERDA

## Funding

Several funding sources help NYSERDA advance the State's clean energy goals and to achieve the Authority's mission. NYSERDA strives to invest these funds in a manner that maximizes benefits to New Yorkers, fills critical gaps, and addresses the needs of the market.

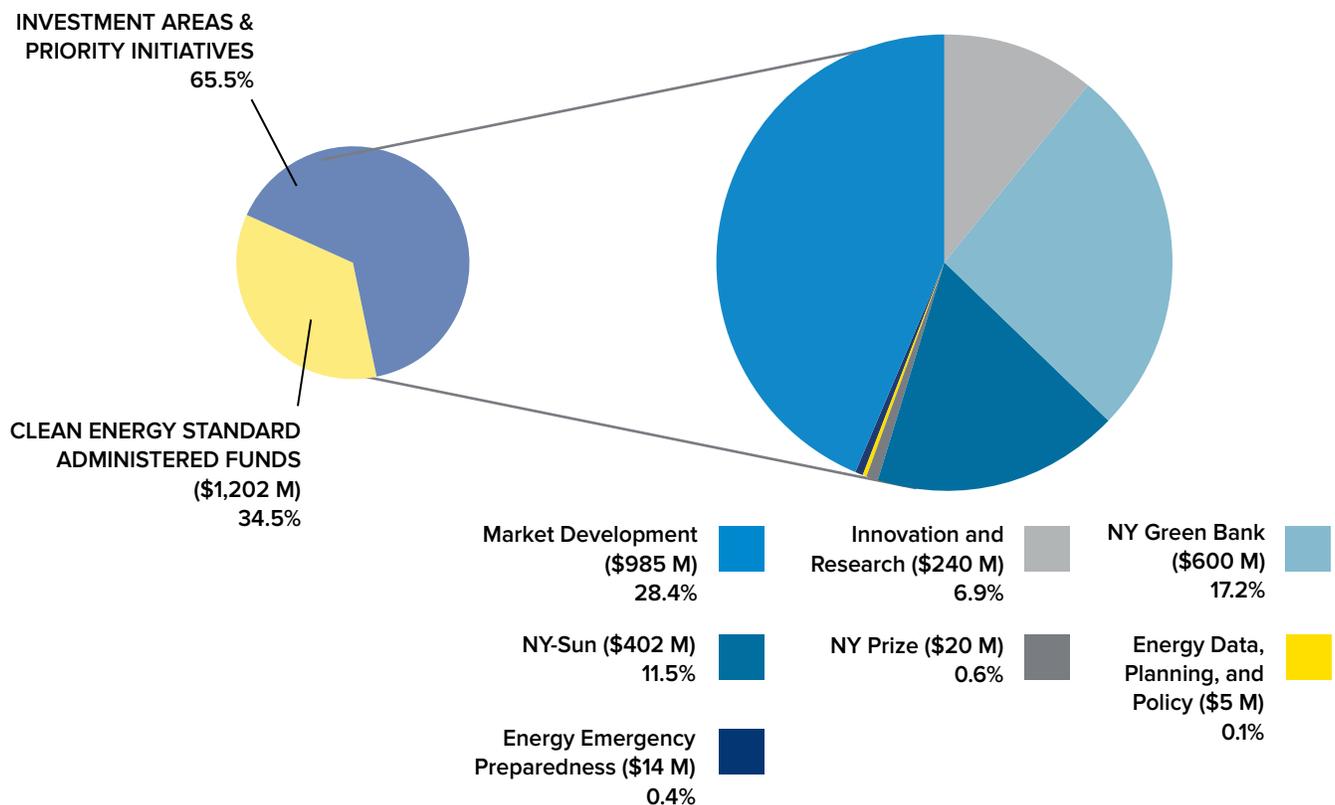
- **Clean Energy Fund** – These funds are authorized by the Public Service Commission and derive from an assessment on retail sales of electricity by New York State utilities. The Clean Energy Fund is comprised of four portfolios: Market Development, Innovation and Research, NY-Sun, and NY Green Bank.
- **Clean Energy Standard** – These funds are authorized by the Public Service Commission and derived from procurements of Renewable Energy Credits and Zero Emission Credits to advance compliance with Clean Energy Standard.
- **Regional Greenhouse Gas Initiative** – These funds are derived from sale of carbon emission allowances as set forth in 6 NYCRR Part 242 and 21 NYCRR Part 507. The amount of revenues available is dependent on the auction prices for the allowances, which are variable. Per requirements in 6 NYCRR Part 507, Regional Greenhouse Gas Initiative funds are used to advance energy efficiency, renewable energy, and carbon abatement projects in New York State.
- **Statutory** – Focused on energy technology development and demonstration and energy planning. These funds are derived from an assessment on the intrastate sales of gas and electricity by New York State utilities and collected by the Department of Public Service pursuant to Section 18-A of the Public Service Law.
- **Cross-State Air Pollution Rule** – The predecessor of Cross-State Air Pollution Rule was the Clean Air Interstate Rule, wherein funds were derived from sale of nitrogen oxide emission allowances as set forth in 6 New York Code of Rules and Regulations Parts 243 and 244. Once allocated by New York State Department of Environmental Conservation to NYSERDA for sale, Cross-State Air Pollution Rule funds will similarly be derived from the sale of nitrogen oxides and sulfur dioxide emission allowances. The amount of revenues available is dependent on market prices for the respective classes of allowances promoted by Cross-State Air Pollution Rule.
- **Federal resources** – Support for a range of energy-related activities. These funds are derived through formula grants from U.S. Department of Energy, competitive grants, and as flow-down funds through other State agencies.
- **Other funds** include sources provided by various sponsors used for specific purposes. All of these public funds are leveraged considerably with private sector funding through NYSERDA programs.

The following financial data represent planned funding as of April 1, 2017 from all sources. Table 1 and Figure 3 illustrate how NYSERDA resources are applied to the program portfolios. This representation underscores NYSERDA's continued focus on market development and deployment of commercially available technology into the marketplace.

TABLE 1. PLANNED FUNDING, 2017-2020

INVESTMENT AREAS AND PRIORITY INITIATIVES	
Market Development	\$985,307,827
Innovation and Research	\$239,720,022
NY Green Bank	\$600,000,000
NY-Sun	\$401,725,001
NY Prize	\$20,000,000
Energy Data, Planning, and Policy	\$4,500,000
Energy Emergency Preparedness	\$14,361,000
<b>Total</b>	<b>\$2,265,613,850</b>
<b>CLEAN ENERGY STANDARD ADMINISTERED FUNDS<sup>2</sup></b>	<b>\$1,201,840,000</b>

FIGURE 3. PLANNED FUNDING 2017-2020 (MILLIONS OF DOLLARS)



<sup>2</sup>The Clean Energy Standard administered funds reflect ordered funding to date. An estimate of Clean Energy Standard spending on Renewable Energy Credits will be reflected following development and Commission approval of a Clean Energy Standard implementation plan.

# Operational Performance Management and Priorities

NYSERDA has been focused on forging a more customer-friendly approach to its operations while optimizing cost effectiveness, and better managing risk, all while driving performance improvements across a breadth of programs. NYSERDA continues to evolve the way it does business to be:

- Responsive to partners and customers
- Easy to navigate
- Streamlined and technology-enabled

## Some examples of recent impacts to improve the customer experience include:

- Applications for open enrollment solar programs, NYSERDA's highest volume program, are now approved on average in one day, down from three days in 2015, and 28 days in early 2014.
- Home Performance audit application approval times have gone from approximately three days to instant approval in 85% of cases; the remaining 15% occur within one day.
- Commercial New Construction approval times have been on average cut in half.
- EmPower application approval times have decreased from 22 days to one day.
- Contracts, invoices, and awards are now managed electronically, rather than exclusively paper-based.
- Data for home performance and solar projects in New York State were released and are updated regularly on the Open NY open data platform.

## This year's priorities include:

- 1. New capabilities that support emerging work.** As NYSERDA advances new programs, it is deploying systems that make it easier for customers to interface with NYSERDA and for NYSERDA to respond more quickly to the needs of the market. Key efforts include migrating the majority of program activity to a new enterprise platform, retiring several legacy databases, improving the usability of the NYSERDA website, deploying electronic signature capability, and accelerating movement of transactions from paper to online.
- 2. Reporting and data that provide decision-quality information.** NYSERDA has been deploying technology to empower the market to access more robust data about its programs. NYSERDA will expand data made available to the public through the Open Data NY data platform, provide more intuitive reports and visualized data, and as it performs this work, make sure that its emerging data standards align with those of the market and investors. Internal reporting has been reoriented to and enable staff to make fact-based decisions that inform the allocation of time, people, and funds to achieve greater impact.
- 3. More effective contracting.** NYSERDA continues to streamline the way it contracts and awards services. NYSERDA will continue to improve its service delivery with the public including more online and simpler applications for services, automated status checks, and faster turnaround times, while managing risk and protecting ratepayer funds.
- 4. Streamlined management of services.** NYSERDA is rationalizing service delivery – and reforming its mix of service providers, approaches, systems, and processes so that it can free up more resources to focus on the work of advancing our strategy and engaging with the market. NYSERDA has launched improvements to its phone support strategy so that when partners or customers call, they get the right information when they need it. NYSERDA will also continue to apply Lean practices to activities that can be simplified, sped up, and made easier to use for customers, partners and its team.

The Clean Energy Fund will help the State achieve:

- **greenhouse gas reductions**
- **customer energy bill savings**
- **energy efficiency and clean energy generation**
- **mobilization of private sector capital**



**State of New York**

Andrew M. Cuomo, Governor

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

Richard L. Kauffman, Chair | John B. Rhodes, President and CEO

