

5

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New York State Energy Research and Development Authority (NYSERDA)
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Good morning, Chair Krueger, Chair Weinstein, and members of the Committees. Thank you for the opportunity to testify before you today. I am Alicia Barton, President and CEO of the New York State Energy Research and Development Authority (NYSERDA). I appreciate this opportunity to appear before the Committees and look forward to working with the Legislature on the critical climate and energy issues facing our state and nation.

Governor Andrew Cuomo's resolute commitment to fighting climate change can be seen in the policies that New York has implemented in recent years and in the remarkable growth of clean energy we have witnessed in our state. However, recognizing the urgency of the threat posed by climate change, and the increasingly dire warnings from scientists across the globe, the Governor is now taking bold new steps as presented last week to the Legislature in his State of the State and Budget address. Governor Cuomo's Green New Deal is a nation-leading clean energy and jobs agenda that will put New York State on a path to a carbon-free power grid by 2040 and to ultimately eliminating the state's carbon footprint altogether.

The cornerstone of the new goal is a significant increase of New York's successful Clean Energy Standard mandate from a requirement to achieve 50 percent of the state's electricity supply from renewable energy by 2030 to a requirement that we reach 70 percent renewable energy under the same timeframe—the most aggressive renewable energy target in the nation. I am pleased to report that New York is already on a strong pace to reach our 2030 renewable energy goal through existing renewable generation, a pipeline of large-scale renewable projects already under contract with NYSERDA, and the projected additional new renewable generation we anticipate will be secured under the State's current renewable initiatives including the Offshore Wind program, NY Sun, and future Clean Energy Standard solicitations. As announced by the Governor last week, New York has now awarded \$2.9 Billion to 46 projects that will generate \$7 billion in direct investment in the clean energy sector, an unprecedented response to the first two renewable solicitations held under the Clean Energy Standard. In just under two years, the new renewable energy projects that we have awarded would generate enough power to support the four largest upstate cities – Buffalo, Rochester, Syracuse and

Albany, and have been awarded at costs far lower than anyone originally anticipated. This is a remarkable outcome by any measure. In addition, 2018 was the largest year in New York State history for new solar installations and New York has emerged as one of the largest national markets for solar energy project development.

Building upon this track record of success, the Green New Deal will entail an unprecedented ramp-up of renewable energy that will include quadrupling New York's offshore wind target to 9,000 megawatts by 2035, deploying 3,000 megawatts of energy storage by 2030, doubling distributed solar deployment to 6,000 megawatts by 2025, maximizing contributions from existing baseline renewable resources, and expanding NYSERDA's Solar For All program for low- and moderate-income New Yorkers. New York will move boldly to achieve these goals with specific near-term actions and long-term strategies to spur unparalleled innovation and transform the state's clean energy economy.

Offshore wind is a key new renewable energy resource that we will need to meet our increased Clean Energy Standard mandate that 70% percent of the state's electricity come from renewable resources by 2030. The Governor is quadrupling the State's target for Offshore Wind deployment to 9,000 megawatts by 2035, the most aggressive offshore wind goal in U.S. history. This would truly transform the state's electricity system, serving approximately a quarter of the state's total expected electricity need in 2035. To achieve this important goal through the most responsible and cost-effective development of offshore wind, in 2018 NYSERDA issued the State's industry-leading Offshore Wind Master Plan and continues to work closely with stakeholders, local officials, and the public as we invest in this critical clean energy technology. In November, NYSERDA issued the State's first solicitation for 800 megawatts or more of offshore wind energy, launching this new industry at scale. We have received an unprecedented response to this comprehensive RFP, with five Notices of Intent to Propose received by late December, representing the world's premier offshore wind developers, and we expect to have contracts executed this summer.

With respect to other priority efforts, advanced energy storage has become, and will continue to be, a significant opportunity for our growing clean energy economy. New York's energy storage strategy under the Green New Deal will double the target to deploy 3,000 megawatts of energy storage by 2030, and we appreciate the Legislature's partnership making this the largest target in the nation. In October, the Governor announced \$40 million to start

progress toward this goal, by supporting projects that pair solar and energy storage technologies. In December the Public Service Commission authorized NYSERDA to fund the Energy Storage Market Acceleration bridge incentive with up to \$310, bringing total authorized funding to \$350 million to support the deployment of at least 500 megawatts of storage by 2022. Moreover, independent research shows that New York's energy storage industry could support more than 27,400 manufacturing and installation jobs by 2030, and NYSERDA is coordinating with government, industry and stakeholder partners to develop programs and approaches that will enable the energy storage industry to reach the state's goal.

Under the Green New Deal, the target for distributed solar deployment in New York is doubling to 6,000 megawatts by 2025. NY-Sun, the State's \$1 billion investment in solar development, has already spurred an increase of nearly 1,500 percent in installed solar energy from December 2011 through December 2018, leveraging more than \$3.5 billion in private investment. Since 2011, the costs to install solar in New York has been reduced by half and we expect costs to continue to decline, thereby helping to drive a robust and sustainable solar market. There are now nearly 12,000 people engaged in solar jobs across the State. To further help low-income New Yorkers realize the benefits of solar power, NYSERDA is securing community solar subscriptions for low-income customers to deliver cost savings and clean energy to more than 10,000 low-income energy consumers through community solar initiatives.

We are a little over two years into the ten-year, \$5 billion Clean Energy Fund (CEF), which is designed to deliver on the commitment to reduce ratepayer collections, drive economic development, accelerate the use of clean energy, stimulate energy innovation and reduce emissions by approximately 133 million metric tons. NYSERDA's CEF investment plans, approved by the Department of Public Service, describe the market interventions and programs NYSERDA is executing, all of which are available on our website. The CEF is on track to meet anticipated energy efficiency and renewable energy goals and will be a key driver of carbon reductions in the state.

The Drive Clean Rebate program has supported sales of electric vehicles in every county in New York State. As of October, nearly 12,000 electric cars were sold in 2018, a 45 percent increase over 2017 and now more than 43,000 electric vehicles have been sold in New York since 2010. To support the expansion of electric vehicles on the road in New York, over 2,800 EV charging stations have been installed through the Charge NY initiative.

As you can see, clean energy is already increasing on steep trajectory across our state. The 2019-20 Executive Budget builds upon this success and recommends up to \$19.7 million authorized funding for NYSERDA to support critical research and development that encourages economic development by supporting new clean energy technology companies in New York. It also supports the State's energy planning functions, such as the State Greenhouse Gas Inventory, the State Energy Plan and other state energy planning needs. These 18-a funds also maintain NYSERDA's energy-related emergency response planning, and are essential to the Fuel NY program, which ensures that New York's first responders and citizens have access to fuel during increasingly frequent extreme weather events. Also included within NYSERDA's budget authorization are allocations of funding for the Department of Environmental Conservation Office of Climate Change to support work on environmental and energy policies to reduce greenhouse gas emissions, the Department of Agriculture and Markets to fund its responsibilities associated with the Fuel NY program, and the continued work at the University of Rochester's Laboratory for Laser Energetics.

This year's Executive Budget recommends \$17.7 million for ongoing nuclear waste cleanup at the West Valley Demonstration Project in Cattaraugus County, an increase of roughly \$700,000. Over the past four decades, NYSERDA has protected New York State interests at West Valley. Our costs at West Valley are largely dictated by a federal match requirement and this amount reflects the funding level necessary to meet the federal appropriation during the 2019-2020 federal fiscal year. West Valley reached a milestone this past year with the demolition of the Vitrification Facility, where the site's high-level radioactive waste was solidified into glass.

While these and NYSERDA's other initiatives are aimed at reducing greenhouse gas emissions, they are also meant to spur the State's clean energy economy and create good jobs. NYSERDA's second annual Clean Energy Industry Report, released in October, shows that in 2017 jobs in New York's clean energy industry increased 3.9%, bringing the number of New York clean energy jobs to nearly 152,000. This growth rate was double the statewide average employment growth rate of 1.6% during the same time frame. These results are extremely exciting and provide evidence that New York's ambitious clean energy agenda is already bringing economic growth to the state.

We are proud of what has been achieved thus far in New York and thank you for your collaboration and partnership. I am proud of NYSERDA's leadership in advancing clean energy solutions on behalf of the State. However, as the federal government seeks to scale back its role in addressing the impacts of climate change, it is now more vital than ever, that New York continue our work to address the global imperative to further enable the fast-growing clean energy economy, which will in turn reduce greenhouse gas emissions to protect our natural resources and provide long-term economic development opportunities for the State.

This concludes my opening remarks. I would be happy to take any questions that you may have. Thank you.

