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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 Doreen Harris, President and CEO of the New York State Energy Research and Development Authority (NYSERDA). I am pleased to appear here today to discuss the many critical climate and energy issues facing our state and nation.

Under Governor Kathy Hochul's leadership and guided by the State's landmark Climate Leadership and Community Protection Act (Climate Act), we have taken significant steps forward in advancing New York's nation-leading clean energy and climate goals. I am highly optimistic as we focus our work in realizing a more equitable clean energy future and continue to build momentum in growing our green economy, which is a focus of national and global attention.

The Climate Act established the Climate Action Council (Council), which I co-chair with Department of Environmental Conservation (DEC) Commissioner Basil Seggos. The Council was charged with developing a Draft Scoping Plan to reduce economy-wide greenhouse gas emissions, and meet the State's ambitious clean energy goals, all while centering support for, and delivery of benefits, to disadvantaged communities.

I am happy to report that a number of key milestones to achieve the Climate Act's goals were met in 2021, including the timely public release of the Draft Scoping Plan, on December 30, 2021. The release of the Draft Scoping Plan marks the start of an important new chapter in New York's climate journey, one that will shape the State's policy and programmatic priorities in the years ahead. The Draft Scoping Plan is now subject to a public comment period and a series of public hearings to gather input and feedback from communities across New York.

Simultaneously, as called for in the Climate Act, additional key reports were finalized and released at the end of 2021, including New York State's Disadvantaged Communities Barriers and Opportunities Report, and the Just Transition Working Group Jobs Study. To help overcome socioeconomic disparities and vulnerabilities associated with climate change, the Barriers and Opportunities Report outlines actions and policies to design climate mitigation and adaptation strategies that prioritize the needs of disadvantaged communities. The Just Transition Working Group Jobs Study estimates the number of jobs and types of occupations that will be required to continue the fight against climate change, matched directly to the investments contained in the Draft Scoping Plan. The findings show that the clean energy transition stands to drive economic opportunities for all New Yorkers, with an estimated 10 jobs added in growing clean energy sectors for every job potentially lost in a displaced sector— and up to 200,000 net jobs added by 2030.

As we look ahead, advances in offshore and land-based wind generation, solar generation, energy storage, energy efficient and electrified buildings, and clean transportation will provide new opportunities to fulfill New York's ambitious clean energy and jobs agenda.

NYSERDA is rapidly advancing work to achieve the state's 70 percent by 2030 renewable electricity goal, through the development of 9,000 megawatts of offshore wind, and increased goals of 10,000 megawatts of distributed solar and 6,000 megawatts of energy storage. This work stands alongside new and ambitious targets and requirements for electrification of our buildings and our vehicles. And, in accordance with the Climate Act, NYSERDA has taken steps to ensure that we are advancing initiatives that deliver a minimum of 35 percent, with a goal of 40 percent, of benefits to disadvantaged communities.

As outlined in Governor Hochul's State of the State and Executive Budget, our next offshore wind solicitation will occur this year and a new nation-leading \$500 million investment to develop our state's offshore wind port infrastructure and supply chain will create 2,000 jobs. NYSERDA finalized contracts for the Empire Wind 2 and Beacon Wind projects, representing another key milestone in the advancement of offshore wind development. This milestone coupled, with the Bureau of Ocean Energy Management's (BOEM) Final Sale Notice for the New York Bight, consisting of 488,000 acres of new lease areas, and plans for a coordinated offshore wind supply chain effort between New York, New Jersey and BOEM represent significant advancement of the offshore wind industry in the Northeast.

NYSERDA also finalized contracts under the Tier 4 program with Clean Path New York (CPNY) and the Champlain Hudson Power Express (CHPE) to deliver clean, renewable solar, wind and hydroelectric power from upstate New York and Canada to New York City. These first-of-its-kind renewable energy and transmission projects, if approved by the Public Service Commission (PSC), are expected to deliver up to \$7.4 billion in overall societal benefits statewide, inclusive of greenhouse gas reductions and air quality improvements. As the largest transmission projects contracted for New York State in the last 50 years, these projects will reduce New York City's fossil fuel use for electricity by more than 80 percent in 2030 when combined with the State's deployment of clean energy and offshore wind. These projects have the potential to create 10,000 family-sustaining jobs statewide and bring \$8.2 billion in economic development investments, including support to environmental justice communities.

New York now has a pipeline of contracted and awarded large-scale renewable generation projects that are expected to deliver 54,000 gigawatt hours of renewable energy annually. The combined pipeline of operating, contracted, and awarded projects are expected to generate approximately 63% of New York's projected 2030 electricity demand.

Regarding solar energy, the State's NY-Sun program, a unique public-private partnership implemented by NYSERDA, has over the past decade helped make New York a national leader in distributed solar development, and despite the pandemic, 2021 was a record-setting year with over 557 megawatts of NYSERDA-supported projects completed. This was NY-Sun's biggest year in every sector, including residential/small commercial and projects benefitting low-to-moderate income customers. Our State is well on its way to achieving six gigawatts of solar by 2025 and NYSERDA and the New York State Department of Public Service (DPS) have now proposed a framework for the State to achieve at least ten gigawatts of distributed solar by 2030, enough to annually power nearly 700,000 homes. The roadmap, submitted to the PSC for public comment and approval, proposes a comprehensive strategy to expand the successful NY-Sun initiative into one of the largest and most inclusive solar programs of its kind in the nation,

helping to increase access to solar for more New Yorkers, in addition to spurring approximately \$4.4 billion in private investment and creating 6,000 additional solar jobs across the state.

We are similarly proud of our work and commitment to support increased deployment of energy efficiency solutions and clean heating and cooling technologies. The Governor, in the State of the State, announced a commitment to support the development of 2 million climate friendly homes. This includes a plan to achieve a minimum of 1 million electrified homes and up to 1 million electrification-ready homes by 2030 and will be anchored by a robust series of actions. For example, the plan includes requiring zero on-site greenhouse gas emissions for new construction by 2027, upgrading New York's appliance efficiency standards to reduce energy use while also saving New Yorkers billions of dollars on utility bills, requiring energy benchmarking for large buildings to track energy-efficiency improvements, and providing training programs to ensure that New York has a skilled workforce to deliver these services. NYSERDA, along with our sister agencies, Homes and Community Renewal (HCR), DPS, and Department of State will deliver an executable plan to achieve this goal that will identify funding and strategies to leverage private capital. This plan will build off HCR's new \$25 billion, five-year housing capital plan, which will advance the State's goals of creating green affordable housing as we decarbonize the housing sector.

As an example of this work, Governor Hochul launched the \$30 million Building Better Homes program – partnering with single family home builders to accelerate emissions-free and healthy residential developments. This supplements New York State's pioneering efforts through its Buildings of Excellence program which is already showing that low-carbon multifamily buildings can be profitable to construct, as well as affordable, beautiful, and healthy places to live.

Another important initiative to address healthy public-school buildings is NYSERDA's Clean Green Schools initiative recently announced by Governor Hochul. This initiative will benefit under-resourced schools, bringing clean energy education into the classroom while investing in much needed infrastructure improvements in schools across the State. With additional funding provided through the "Clean Water, Clean Air and Green Jobs Environmental Bond Act," if approved by voters this year, the Clean Green Schools initiative will help bring green solutions to over 1,000 public schools. The initiative will drive significant infrastructure upgrades, such as geothermal heating and cooling, solar, indoor air quality/ventilation, electric school bus charging and more, creating thousands of high-quality green jobs as schools decarbonize their facilities and operations.

To continue progress toward 100 percent Zero Emission Vehicles, the Governor recently announced more than \$12 million in additional funding for the Drive Clean Rebate program to help consumers save on the purchase of electric vehicles. There are now more than 81,000 electric vehicles registered in New York State – up from 24,551 just four years ago – and there are more than 9,000 electric vehicle charging stations installed statewide. A good start, but we know we have more work to do.

We launched the \$85 million New York Clean Transportation Prizes program last April. This clean transportation competition is focused on demonstrating innovative approaches to electrifying transportation and expanding clean mobility options in disadvantaged communities,

with the goal of replicating these projects in similarly situated communities statewide. We recently announced the 17 finalists from phase one and will soon be evaluating phase two proposals for grand prize awards, which will be announced later this year.

Essential to all our work, the new renewable energy infrastructure created by our investments will focus the economic growth and job creation power of renewable energy to prioritize hiring in environmental justice areas and delivering benefits to disadvantaged communities. These workforce efforts not only support the growing demand for workers in these sectors, but they prioritize training programs for the State's most underserved populations – low-income individuals, veterans, disabled workers, single parents, the formerly incarcerated persons, and individuals from disadvantaged communities, and will also help integrate displaced workers into the clean energy industry. To support this, NYSERDA has committed nearly \$120 million for existing workforce development and training initiatives, which is directly targeting and benefitting priority populations and disadvantaged communities. NYSERDA's workforce development efforts are supporting career pathway programs that provide education, training, and services to help place new workers into clean energy occupations like high-efficiency heating, ventilation, and air conditioning (HVAC), building electrification and energy efficiency. These efforts will help train and prepare more than 40,000 New Yorkers for growing clean energy job opportunities and assist clean energy businesses in recruiting, hiring, and training workers.

As you can see, clean energy is already increasing on a rapid trajectory across the entire State. The 2022-23 Executive Budget recommends up to \$22.8 million in authorized funding for NYSERDA to support critical research and development and new clean energy businesses throughout New York. This funding also supports the State's energy planning functions, such as the State Greenhouse Gas Inventory and the State Energy Plan, ongoing support for the University of Rochester Laboratory for Laser Energetics and other purposes authorized in the enabling legislation.

This year's Executive Budget also recommends \$23.6 million for ongoing nuclear waste cleanup at the West Valley site in Cattaraugus County, an increase of roughly \$3 million. Over the past four decades, NYSERDA has managed and protected New York State's interests at West Valley. Demolition, remediation, and containment work on the West Valley Demonstration Project is ongoing in partnership with the federal government and this funding is critical to ensure responsible decommissioning of this facility. 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 and NYSERDA's other commitments at West Valley during the 2022-2023 federal fiscal year.

I am extraordinarily proud of NYSERDA's leadership in advancing clean energy and climate solutions on behalf the people of this great State. I take great pride in the partnerships we have forged with the Legislature and our sister agencies. Clean energy is a vital component of New York's economic future, and these historic actions will generate billions of dollars of investment, thousands of new family-sustaining green jobs, and a cleaner, more resilient economy. As we build back our economy better, smarter and healthier with clean energy infrastructure and people-focused investments, the nation and the world will be watching, and

our actions will once again affirm New York State as a leader in clean energy, environmental protection, and the fight against climate change.

This concludes my opening remarks, and I will now turn it back to Chair Krueger and Chair Weinstein.