MINUTES OF THE ONE HUNDRED TWELFTH MEETING OF THE PROGRAM PLANNING COMMITTEE HELD ON APRIL 27, 2021

Pursuant to a notice and agenda dated April 18, 2021, the one hundred twelfth (112th) meeting of the Program Planning Committee (the "Committee") of the NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY (the "Authority") was convened at 2:15 p.m. on Tuesday, April 27, 2021, by videoconference.

The following members of the Committee were present:

Mark Willis, Committee Chair

Richard Kauffman, Chair of the Authority

Sherburne Abbott

Charles Bell

Ken Daly

Jay Koh

Marie Therese Dominguez

Gil Quiniones

Also present were Doreen Harris, Acting President and CEO; Janet Joseph, Senior Vice President for Strategy and Market Development; John Williams, Vice President for Policy and Regulatory Affairs; Jeffrey J. Pitkin, Treasurer; Peter J. Costello, General Counsel; Sara L. LeCain, Senior Counsel and Secretary to the Committee; Michelle Andry, Energy Affordability and Equity Project Manager; Christopher Coll, Director of Energy Affordability and Equity; Jaime Marcotte, Program Manager Efficiency Planning and Engineering; Robyn Marquis, Program Lead Clean Transportation Prizes; Emily Dean, Director of Market Development; and various other staff of the Authority.

Mark Willis called the meeting to order. The meeting notice and agenda were forwarded to the Committee Members on April 18, 2021 and to the press on April 19, 2021. The meeting was

held via videoconference and Mark Willis asked Sara LeCain to conduct a roll call. Each Member indicated their presence and Sara LeCain confirmed a quorum was present.

Mark Willis indicated that the first item on the agenda concerned the approval of the minutes of the one hundred eleventh (111th) meeting of the Committee, held on February 2, 2021.

Whereafter, upon motion duly made and seconded, and by unanimous voice vote of the Committee members, the minutes of the one hundred eleventh (111th) meeting of the Committee, held on February 2, 2021 were approved.

Mark Willis indicated that the next item on the agenda was a report on the Authority's Diversity, Equity, and Inclusion program. This item was first introduced by the Authority's President and CEO, Doreen Harris.

Doreen Harris discussed the importance of diversity, equity and inclusion at the Authority and highlighted the internal efforts underway. Doreen continued that progress in diversity, equity, and inclusion extends across the clean energy industry broadly because the clean energy industry employs significantly fewer women and people of color than the broader labor force. Doreen also explained the importance of building an inclusive clean energy economy, where the benefits of clean energy are not simply accessible to all but delivered equitably.

Doreen Harris then turned the presentation over to Michelle Andry to report on the work being performed at the Authority on the diversity, equity, and inclusion strategic plan.

Michelle Andry explained that the Authority, in consultation with the firm T.H Easter, conducted capacity building and level setting workshops for both Authority leadership and staff to understand the value of diversity, equity and inclusion, as well as implicit bias. After surveying Authority staff and conducting focus groups, Michelle explained that the primary recommendation was for the Authority to create a diversity, equity, and inclusion strategic plan which focuses on recruiting practices; onboarding process, career and professional development;

performance management; formal employee recognition; internal process review; leadership development; effective communications throughout the Authority; and building more effective collaboration across teams.

To create the plan, Michelle explained that a 12 staff member team was assembled to engage and inform its development. Michelle further explained that the team developed draft goals, objectives, and strategies that have been reviewed by the executive team. Michelle noted that the teams are finalizing tactical plans to achieve the goals. Ultimately, those plans will lead to the next phase of pairing the tactics with budget considerations and allocations and implementing and communicating the strategic plan to the Board and Authority staff.

Michelle Andry then turned the presentation over to Janet Joseph to report on building an inclusive clean energy economy through the Authority's programs and external investments. Janet introduced Chris Coll, Director of the Energy, Affordability, and Equity program to discuss the Authority's programmatic strategy development and evolution to achieve an inclusive, clean energy economy and deliver benefits to disadvantaged communities.

Chris Coll explained that the Authority developed a series of initiatives focused on internal capacity building to ensure that all team portfolios were positioned to orient their market focus and sector strategies to better deliver benefits to disadvantaged communities and to better improve engagement in these communities to ensure the Authority's initiatives benefit those communities. Chris noted that the energy equity stewardship initiative was launched this year to identify an equity steward in each Authority program team to assess how their program areas are currently engaging with, or otherwise benefiting disadvantage communities and how their investments are flowing to these communities.

Another initiative Chris discussed was the energy equity residency program, which is providing the energy equity stewards with an opportunity to spend six months embedded within the energy, affordability, and equity team to work more closely with the team members and engage with communities and key stakeholders to develop expertise that will ultimately benefit their team. Chris also discussed the energy equity collaboration initiatives which allows Chris' team to dive into key Authority program areas to best position those programs, initiatives, and stakeholders to assist disadvantage communities. Chris explained that another aspect of the initiative would involve regular engagement with key stakeholders in the low to moderate

income and environmental justice space to help them prioritize their engagements with the Authority and reduce administrative burden for those stakeholders.

After Chris Coll's presentation, Ken Daly and Mark Willis noted that accountability and metrics for tracking the progress of the Authority's diversity, equity, and inclusion efforts would be important to the Board.

In response to an inquiry from Richard Kauffman, Chris Coll explained that the Authority is collaborating with the Department of Energy on implementing energy justice initiatives to define the term "disadvantaged community" and develop a framework to track and report on the benefits of these initiatives.

In response to an inquiry from Richard Kauffman, Janet Joseph explained that in the affordable housing area, the Authority is looking to build new collaboratives with housing agencies, and these housing agencies influence what is happening in the affordable housing market. Janet further explained that the Authority is trying to scale decarbonizing of buildings in affordable housing to incorporate energy efficiency electrification into the financing deals that the housing agencies are doing. Janet noted that this is a hybrid model where the Authority is leveraging existing market transactions and structures to benefit affordable housing.

Jay Koh noted that the Authority should take advantage of resilient infrastructure investment that can benefit communities within New York State, particularly those that are disadvantaged or low middle income communities.

Chuck Bell noted that an important aspect of diversity, equity, and inclusion is communicating with diverse audiences about the availability of Authority programs, initiatives, and opportunities. Chuck also noted that language access and creating partnerships or finding ways to get Authority materials and information about products or programs to those diverse audiences would be an important dimension of the Authority's mission.

Sherburne Abbott also noted the importance of communication and reinforcing the Authority's messaging to both internal staff and external stakeholders.

Following the questions and comments, Mark Willis introduced the next presenter, Jaime Marcotte, program manager of the energy efficiency and engineering program.

Jaime Marcotte explained that the P12 Green School Initiative is currently under development with a tentative launch date of 2022. Jaime stated that there are approximately 6,000 pre-kindergarten through 12th grade schools across New York State and one-third of those schools are in a disadvantaged community. Jaime explained that the purpose of this multi-phase program is to provide schools with financial support to decarbonize while also engaging students and the community in the process. The first phase includes \$45 million in incentives for schools to engage professional services to assist them with planning, indoor air quality assessments, energy and feasibility studies, and money to hire staff at the school to support the move toward decarbonization.

Jaime explained that the second phase will be completed in two stages with awards ranging from \$500,000 to \$2 million. The award would be for capital upgrades including comprehensive energy efficiency projects, heat pump ready projects, upgrading distribution systems that would prepare the school for clean heating and cooling systems installations, and entirely upgrading a heating system.

Jaime further explained that funding would also be directed towards educating students and the community about the project the schools are undertaking and educating students on possible career pathways related to clean energy and decarbonization. Jaime noted that the Authority is engaging with multiple stakeholders to potentially provide scholarships or paid trainings to students and teachers.

In response to Jaime's presentation, Mark Willis asked about the amount of funding, cost of outreach, and cost to upgrade a school. Jaime responded that the \$45 million is just the incentive and there would be additional funding for outreach efforts. Jaime explained that in phase one, the awards would range from \$50,000 to \$150,000 for professional services support and it is estimated that the award will serve about 300 schools. Jaime further explained that for phase two, there would be multiple ranges of awards serving about 20 schools or 20% of the population.

In response to Jaime's presentation, Jay Koh noted that the program should consider integrating assumptions about future climate conditions and resiliency to prevent today's hard work from being undone by the physical impacts of climate change.

Following the questions and comments, Mark Willis introduced the next presenter, Robyn Marquis.

Robyn explained that transportation is the largest source of greenhouse gas emissions, and that air pollution issues disproportionately impact disadvantage communities. These communities have limited clean mobility options and access to essential central services. As a result, three transportation prize competitions were launched by the Authority to address emissions, equity and electrification, and accelerate a transition to clean transportation. Robyn explained that the Authority co-designed the prize program with Carrot into three challenges.

The first challenge, clean neighborhoods, is focused on addressing air pollution reduction at scale, specifically in disadvantage communities. The second challenge, electric mobility, is looking for innovations that increase access to safe and convenient electric mobility options. The third challenge, electric truck and bus, is focused on identifying the next set of solutions that could be further incentivized through a future, make ready type of program.

Robyn explained that a requirement for challenges one and two is that the project efforts benefit at least one disadvantaged community in the state for electric truck and bus. Robyn further stated that there will be a significant focus on replicable and scalable solutions, that will not only work for disadvantaged communities, but for all communities across New York State and beyond. Robyn explained that the total program budget is \$103 million with an additional grand prize awarded from the clean energy fund. Robyn stated that the Long Island Power Authority ("LIPA") also agreed to commit one grand prize in its territory. Robyn stated that the proposals are due in August 2021 and ultimate selection of the grand prize awardees will be in June 2022.

After receiving no questions or comments on Robyn Marquis' presentation, Mark Willis introduced the next presenter, Emily Dean.

Emily Dean stated that that there are three pilot programs under development with affordable housing partners across New York State to advance highly efficient, healthy, and more comfortable affordable housing buildings. Emily stated that the three pilot programs target the 1.5 million units regulated by the New York State Housing and Community Renewal

("HCR"), New York City Housing, Preservation and Development ("HPD") or local housing authorities.

Emily explained that as part of Governor Cuomo's State of the State agenda, the Governor announced the Raise the Green Roof initiative. This initiative partners the Authority with HCR to assist in developing a model that directly includes grants and supplemental capital within HCR's financing deals to support electrification and efficiency, solar and other technologies to decarbonize the affordable housing stock. Emily explained that the initiative seeks to create a single process using the affordable housing refinancing process to insert grants and supplemental capital and increase the scope to deliver those benefits as part of the refinancing process. This would include incremental funding for energy efficiency and electrification, solar, and other solutions as part of that financing deal. Emily stated that the program expects to serve at least 5,000 units with the potential to expand as cost decline.

Emily also discussed the New York City Housing Authority ("NYCHA") electrification partnership. The goal of this partnership is to test, assess, and scale adoption of electrification solutions in NYCHA's portfolio. Emily explained that electrification reduces NYCHA's emissions, but also delivers more reliable heat to NYCHA's residents in comparison to the current system, mitigates the issues of under- or overheating that is an issue in NYCHA buildings, delivers cooling to the vulnerable residents particularly those in senior housing, and provides redundancy for apartments with multiple electrification units. In response to this partnership, the Authority and NYCHA have developed a set of specifications and are putting a challenge out to the industry to create a packaged window-mounted heat pump with cold climate performance. Emily explained that the Authority is leveraging approximately \$13 million in funding as approved in the recent Regional Greenhouse Gas Initiative Program ("RGGI") operating plan. Emily expects to be able to fund a demonstration of technologies in two or three NYCHA buildings, delivering these solutions to 4,000 apartments or roughly 11,000 heat pump units.

In response to Emily Dean's presentation, Jay Koh noted that product designs which increase resiliency in the face of weather events should be incorporated systematically throughout these programs.

Ken Daly noted that Long Island is still almost 60% oil heat and there would be a double benefit of going from oil all the way to electrification, or to some other cleaner form of energy.

Mark Willis indicated that the last item on the agenda was other business. There being no other business, the meeting was adjourned.

Respectfully submitted,

Sara L. LeCain

Secretary to the Committee