PROGRAM PLANNING COMMITTEE OF THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

Minutes of the 95th Meeting Held on June 21, 2016

Pursuant to a Revised Notice and Agenda dated June 8, 2016, the 95th meeting of the Program Planning Committee ("Committee") of the NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY was convened at 1:00 p.m. on Tuesday, June 21, 2016, in the Authority's Albany Office at 17 Columbia Circle, Albany, New York, and in the Authority's New York City Office, located at 485 Seventh Avenue, 10th Floor, New York, New York.

The following Members of the Committee were present:

Mark Willis, Committee Chair Richard Kauffman Sherburne Abbott Charles "Chuck" Bell Jay Koh John McAvoy Gil Quiniones Jigar Shah Elizabeth W. Thorndike, Ph. D

Also present in either Albany or New York City were: John B. Rhodes, President and CEO of NYSERDA; Janet Joseph, Vice President for Technology and Strategic Planning; Jeffrey J. Pitkin, Treasurer; Noah Shaw, General Counsel; David Margalit, Chief Operating Officer, Valerie S. Milonovich, Senior Counsel and Secretary to the Committee; and various other members of the Authority staff.

Mr. Willis called the meeting to order, noted the presence of a quorum, and stated that a Notice of the meeting (attached hereto as Exhibit A) was mailed to Committee Members and the press on June 8, 2016.

Approval of April 11, 2016 Minutes

The first agenda item concerned the approval of the minutes of the 94th meeting of the Committee held on April 11, 2016. Upon motion duly made and seconded, and by unanimous voice vote, the minutes of the 94th meeting of the Committee were approved.

Report on the Authority's Clean Energy Fund Pipeline and Metrics

The Committee was briefed on the status of the Authority's Clean Energy Pipeline and Metrics by Jennifer Meissner, Program Manager for Performance Management. As a follow-up to previous

discussions had by the Committee Members about how the Authority selects and designs projects, Ms. Meissner provided details about the considerations, tools, and metrics Authority Staff uses to weigh options when designing the Clean Energy Fund (CEF) portfolio in the context of the Authority's high-level goals.

Ms. Meissner presented projections for the five key metrics applied across the CEF portfolio for the period 2016 through 2025. The five key metrics include: anticipated energy efficiency savings, renewable energy development, emissions reductions, customer bill savings, and private investment. She explained how the application of these metrics has been expanded and redefined to fit the new CEF approaches, adding that in addition to direct benefits, a significant amount of indirect benefits resulting from pilots and programs are anticipated.

Staff has developed an *Initiative Pipeline Overview Report* that is updated at least weekly that emphasizes the impact of the CEF investments and enhances the Authority's ability to benchmark as it plans. This is particularly important given the nature of the CEF, which evolves over time, initiative by initiative, using the test-measure-adjust approach. Authority Staff also compares intervention options to weigh the efforts that achieve the greatest results, ultimately deciding those programmatic areas in which the Authority will invest. Ms. Meissner stated that program performance information will be shared with the public through regular reporting.

In her presentation, Ms. Meissner guided the Committee through the specific aspects of the report, providing an overall picture of the budgets established for the various program portfolios, and provided visual examples of how each of the key metrics are tracked and portrayed in the *Pipeline Overview Report*.

In response to an inquiry by Mr. Willis with regard to progress reporting, Ms. Meissner provided more detail regarding the Authority's quarterly reporting requirements for the CEF, stating that the first quarterly report for Market Development and Innovation and Research is due August 15, 2016 and all reports will be filed with the New York State Public Service Commission and be made accessible to the public.

In response to an inquiry by Mr. Koh regarding the breadth of the information provided, Mr. Rhodes explained in greater detail how projects are prioritized by Authority Staff. He stated that programs are developed by understanding the market and using that information to generate program ideas. The potential impacts and readiness of program efforts are also considered in the context of the overall portfolio milestones. In response to a related inquiry from Mr. Willis, Mr. Rhodes restated the key outcome metrics to further illustrate the Authority's prioritization efforts.

In response to an inquiry by Mr. Willis regarding how the Authority might discontinue a particular effort that was under performing, citing the low-to-moderate income sector as an example, Mr. Rhodes agreed that, although more progress is needed with regard to this sector, he believes that continued efforts tailored toward this sector are integral to the success of the State's overall energy goals. He added that Authority Staff is working diligently to employ novel approaches that serve larger numbers of customers in this sector. Mr. Rhodes also described a relatively new program that he believes has much potential for success. The program, called Retrofit NY, is based upon a European program that has demonstrated a 40% reduction in energy use in social housing.

In response to comments made by Mr. Willis as to how the Committee could best provide input, Mr. Rhodes suggested that, in the future, Authority Staff could present the program portfolio with a comparison against the planned path to provide a better perspective with regard to the early years of implementation. Mr. Rhodes stated that the tool being presented is meant to address the challenges of portfolio design while being mindful of the need to balance various goals such as reduction in energy use, carbon reduction, and enhancing market effects.

In response to an inquiry by Mr. Koh regarding the desire for additional macro-level information, Ms. Meissner assured the Committee that such information is tracked by Staff and she provided more detail regarding the various means by which Authority Staff is able to track implementation progress in the aggregate, as well as by individual portfolio elements.

In response an inquiry by Mr. Shah regarding the value of examining the programs and projects that are not initially pursued, Mr. Rhodes stated that, on occasion and as a result of further analysis, those projects are ultimately pursued if the resultant analysis supports a risk worth taking.

Mr. Rhodes thanked Dr. Thorndike for her suggestions to provide the information presented in the larger context so that progress against the State's overall energy goals could be easier understood by interested stakeholders. Mr. Shah agreed that the discussion would benefit from additional information that addresses the larger context.

Related to the discussion regarding portraying portfolio progress in the larger context, Mr. Rhodes stated that if the Authority and the other involved State entities are to successfully deliver on all of their respective planned activities, the State's goals will be met. Mr. Kauffman added that it is not the purpose or intention of the Authority to "be" the market or to "be bigger" than the market. Rather, each involved State entity has a specific role to play in realizing the overall State energy goals.

Mr. Bell suggested that many stakeholders would likely be interested in the employment impacts of the energy program investments undertaken.

In response to a suggestion by Mr. Willis, Mr. Rhodes agreed that a progress report could be presented at the next meeting. Ms. Joseph also noted that the Authority's Strategic Plan is planned to be presented at the next Committee meeting and, by definition, it will be an indicator of progress.

Mr. Margalit noted that the point about overall context is very important and is a result of how the Authority lives up to its goals through a series of day-to-day decisions on how to invest and in what to invest.

Mr. Willis complimented the work undertaken by Authority Staff and emphasized that the Committee strives to be helpful and to clearly understand the ongoing activities.

Report on the Authority's Off-Shore Wind Program Efforts

Doreen Harris, Program Manager for Large-Scale Renewables, presented the status of the Authority's Off-Shore Wind program efforts. Doreen described the goals of the Offshore Wind

Master Plan announced by Governor Cuomo in his 2016 State of the State address. The goals are to provide a comprehensive State roadmap for advancing the development of offshore wind in a cost-effective and responsible manner. It is expected that offshore wind can make a significant contribution to the State's Clean Energy goals and the Clean Energy Standard mandate, along with providing related economic development opportunities for the State.

Ms. Harris described the specific elements of the Offshore Wind Master Plan, as well as the various studies being conducted. Ms. Harris also described the various pre-development work activities that will serve to reduce overall project and ratepayer costs for New York State offshore wind sites. These activities will also reduce development risk, project timelines and will ultimately increase competition between developers for the sites.

Ms. Harris provided information regarding the schedule for the Bureau of Ocean Energy Management (BOEM) auction for a commercial offshore wind energy lease off the coast of Long Island in which the Authority intends to participate. There are eleven offshore wind areas identified by BOEM for auction and, if successful, this would be the Authority's first offshore wind area lease, which would typically be awarded to a private developer through a competitive auction. It is envisioned that the role of the Authority would be of a "packager" rather than that of a developer to better ensure that the site is developed in a more responsible manner. Other benefits of the Authority's engagement would be to address any disconnect that sometimes exists between the lease and the offtake, and to garner the benefits of competition at a stage when it is most important for the State. Authority Staff believes that this is a great opportunity for a cost-effective, timely project.

In response to an inquiry by Mr. Willis with regard to the public auction process, Ms. Harris explained the auction is an ascending auction where bidding is conducted in rounds. The number of bids is public and the highest bid amount for the area wins the lease. There is a fee to participate in the auction but is refunded should the lease not be awarded. Funds expended by the Authority for the lease would be recouped if the project is released to a developer through the competitive process.

In response to an inquiry by Mr. McAvoy regarding the funding, Ms. Harris stated that Authority Staff believes that the \$15 million approved by the New York State Public Service Commission is sufficient for the pre-development and Master Plan, but that additional funds were available, if necessary.

Mr. Koh complemented the work that has been undertaken, noting that the bulk of the portfolio of the Green Bank of the United Kingdom was in offshore wind development, highlighting the potential role for the New York Green Bank.

In response to an inquiry by Mr. Kauffman on the impact to the Authority if it does not successfully secure the lease, Ms. Harris noted that the development area is quite small and the monies invested in the pre-development work would likely spur additional competitive wind development.

In response to comments by Mr. Shah regarding access to capital, Ms. Harris stated that these efforts are all likely to lead to better projects that lower ratepayer costs.

In response to Dr. Thorndike's comment with regard to the State's Great Lakes Region and the potential for off-shore wind development, Mr. Rhodes stated that, perhaps there is the potential for development activity in the future, but the BOEM-designated area is the immediate resource on which to focus.

In respond to Ms. Abbott's comments with regard to the environmental assessment generally, and with regard to the inclusion of the impact of climate change, Ms. Harris advised that public hearings where scheduled in short order for various locations in New Jersey, Rhode Island, Massachusetts and in the New York metropolitan area.

Mr. McAvoy complimented the Authority Staff work in this area, stating that he believes that it is a very appropriate role for the Authority.

Other Business

In response to a request by Mr. Willis, an update on items discussed at the April 11, 2016 Program Planning Committee Meeting was provided. Ms. Joseph provided an update regarding the smart grid and grid modernization, stating that in response to a suggestion that the Authority continue to coordinate its activities in this area with the utilities, the Authority is participating on the Distributed System Implementation Plan (DSIP) Advisory Group and other technical working groups. She also reported that Authority Staff has adjusted its RD&D Road Map to synchronize with the DSIP milestones and to better integrate the priorities of the Authority and the utilities.

Mr. Margalit provided an update regarding the Authority's Real Time Energy Management (RTEM) efforts stating that Authority Staff has responded to Committee feedback to pursue partial energy savings in buildings, as recommended by Mr. Shah, and to incorporate the benefits of locational value into program design, as recommended by Mr. Kauffman. Mr. Margalit also stated that Authority Staff is pursuing approaches to working with utility account managers, as was recommended by Mr. Daly.

There being no additional business to consider, upon motion duly made and seconded, and by unanimous voice vote, the meeting was adjourned.

Respectfully submitted,

Valerie A. Wilonovich

Valerie S. Milonovich

Secretary to the Program Planning Committee



Governor

RICHARD L. KAUFFMAN Chair JOHN B. RHODES
President and CEO

NOTICE OF MEETING AND AGENDA

June 8, 2016

TO THE MEMBERS OF THE PROGRAM PLANNING COMMITTEE:

PLEASE TAKE NOTICE that a meeting of the Program Planning Committee (the 95th meeting) of the New York State Energy Research and Development Authority will be held in the Authority's Albany Office located at 17 Columbia Circle, Albany, New York, and in the Authority's New York City Office located at 1359 Broadway, 19th floor, New York, New York, on Tuesday, June 21, 2016, commencing at 1:00 p.m., for the following purposes:

- 1. To consider and act upon the Minutes of the 94th meeting held on April 11, 2016.
- 2. To receive a report on the Authority's Clean Energy Fund Pipeline and Metrics.
- 3. To receive a report on the Authority's Off-Shore Wind program efforts.
- 4. To transact such other business as may properly come before the Committee.

Members of the public may attend the meeting at either of the above locations. Video conferencing will be used at both locations and the Authority will be posting a video of the meeting to the web within a reasonable time after the meeting. The video will be posted at http://www.nyserda.ny.gov/About/Board-Governance/Board-and-Committee-Meetings.

Valerie S. Milonovich

Valerie A. Wilsonovich

Secretary to the Program Planning Committee

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