MINUTES OF THE ONE HUNDRED NINETY-SEVENTH MEETING OF THE
PROGRAM PLANNING COMMITTEE
HELD ON JANUARY 24, 2017

Pursuant to a Notice and Agenda dated January 13, 2017, and a Revised Notice and Agenda dated January 19, 2017, a copy of which is annexed hereto, the ninety-seventh 97th meeting of the Program Planning Committee ("Committee") of the NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY ("Authority") was convened at 12:00 p.m. on Tuesday, January 24, 2017, at the office of the New York State Dormitory Authority ("DASNY"), One Penn Plaza, 52nd Floor, New York, New York, and in the Authority's Board Room at 17 Columbia Circle, Albany, New York.

The following Members of the Committee were present:

Mark Willis, Committee Chair
Richard Kauffman. Chair of the Authority
Charles "Chuck" Bell
Ken Daly
Jay Koh
John McAvoy
Gil Quiniones
Jigar Shah
Elizabeth W. Thorndike, Ph. D

Also present in either New York City or Albany were: John B. Rhodes, President and CEO of NYSERDA; Janet Joseph, Vice President for Innovation and Strategy; 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 was mailed to Committee Members on January 13, 2017 and to the press on January 17, 2017. A Revised Agenda was provided to the Members on January 19, 2017.

Approval of September 20, 2016 Minutes

The first agenda item concerned the approval of the minutes of the 96th meeting of the Committee held on September 20, 2016. Upon motion duly made and seconded, and by unanimous voice vote, the minutes of the 96th meeting of the Committee were approved.

Authority's Budget for FY 2017-2018

The Members were requested to adopt a resolution recommending to the full Board the adoption of the Authority's Budget and Financial Plan for the fiscal year ending March 31, 2018 (fiscal year 2017-18). The Authority's Treasurer, Jeff Pitkin, reported on the more significant items beginning with revenues of $1.34 billion, which reflects an increase of $1.1 billion from the current year budget; $1.37 billion in expenditures, an increase of $545.3 million from the current year budget, and $3.1 million in capital expenditures. Mr. Pitkin also stated that the Budget results in a restricted net position balance of $514.7 million, a decrease of $224.7 million from the current year budget. It results in a balance of unrestricted net position of $3 million. The budget increases the available capitalization of the NY Green Bank to $553.2 from $359.0 million.

Mr. Pitkin explained that approximately $564.1 million of utility surcharge assessment revenue is anticipated to be recognized during fiscal year 2017-2018. Approximately $544.4 million in NY Green Bank, Clean Energy Fund (CEF), Energy Efficiency Portfolio Standard (EEPS), and NY-Sun revenues result from the "bill-as-you-go" approach and $19.7 million derives from an assessment on intrastate utility electric and gas sales pursuant to Public Service Law Section 18-a which supports Energy Research and Development, Energy Analysis, Fuel NY, and other Authority initiatives.

Revenues under the "bill-as-you-go" approach are substantially higher than the previous fiscal year utility assessments as expenditures will be funded primarily out of cash balances resulting from unspent prior ratepayer collections. Under this approach, once NYSERDA's cash balances are reduced to a two-month working capital level, revenue will be recognized as expenditures are incurred.

Mr. McAvoy stated that he was pleased to be seeing the results of the "bill-as-you-go approach."

In response to an inquiry by Mr. Willis regarding cash flow, Mr. Pitkin confirmed that there has been none and there has been little in the way of new cash collections thus far. He further stated that the Authority has enjoyed a great relationship with the utilities, providing projections of balance drawdowns and keeping all parties informed of current status.

Mr. Pitkin explained that the budget reflects the projected sale of zero-emission credits (ZECs) and renewable energy credits (RECs) of $485.6 million to New York State's load-serving entities (LSEs) as directed by orders of the New York State Public Service Commission in the Clean Energy Standard (CES) proceeding. Approximately $484.4 million in ZEC collections and $1.2 million in RECs collections are anticipated.

In response to clarifying questions from Mr. Willis, Mr. Daly, and Mr. Shah with regard to the timing of the different payments (monthly for RECs, quarterly for ZECs) and the model pursuant to which the respective efforts are intended to proceed, Mr. Pitkin provided more detail, as well as information on the development of precautionary backstop arrangements for forthcoming fiscal years.

In response to an inquiry from Mr. Shah with regard to the status of the small-scale renewable credits that are retained by the Authority, Mr. Shaw stated that this issue is currently pending before the New York State Public Service Commission. He further stated that the Authority is seeking clarification regarding the 2017 targets given the legacy customer-sited tier (CST) and NY-Sun projects given that the Authority's contracts have historically reserved the right to claim the RECs associated with those projects for purposes of reporting under the Renewable Portfolio Standard. However, at this time, those RECs are not being offered for sale.

In response to an inquiry by Mr. Shah regarding the REC market clearing price, John Williams, Director of Policy and Regulatory Affairs, and Ms. Joseph provided clarification that the current price is approximately $22 per megawatt hour. This price represents a value that the Authority has offered to the market based on a formula related to the Authority's investments during the original project development. In response to an inquiry from Mr. Shah as to how this price may change over time, Mr. Pitkin indicated that it is a source of discussion for the second phase of the CES.

Mr. Pitkin continued by addressing the revenue expectations for the Regional Greenhouse Gas Initiative (RGGI) Program in the context of the past revenue projections. The approved fiscal year 16-17 budget assumed $5.23 per allowance, or $114.6 million. The Revised RGGI Operating Plan assumes $4.52 per allowance, or $102.1 million for fiscal year 2016-2017. For fiscal year 2017-2018, the average annual allowance price is estimated to be $7 per allowance, or $153.4 million. This estimate is based on analysis conducted through the ongoing RGGI program review process.

Mr. Pitkin provided the following additional highlights from the budget:

- The NY Green Bank budget includes CEF utility assessment revenue of $193.0 million. Fees and income of $9.6 million include: loan interest of $6.0 million; fee income of $2.4 million; and interest income of $800,000.

- Authority program expenditures of $1.25 billion, request an increase of $542.2 million from the current year budget. Program expenditures are projected to increase principally from increases in anticipated program expenditures for the CES, CEF Market Development/Innovation & Research, and other programs, offset in part by a decrease in program expenditures for the RGGI and the SBC New York Energy $mart™ programs.

- Salaries and benefit costs are projected to be $51.9 million and the budget includes funding for cost of living adjustments and performance-based salary increases and payments which will be paid if approved by the Division of the Budget.

- Program operating costs are $5.9 million, an increase of $1.1 million primarily due to increases in professional services, temporary staffing, and computer services and software costs, offset in part by reductions in office supplies, equipment rental, and other expenses.

- General and administrative expenses are $13.5 million, an increase of $806,000 primarily due to an increase in anticipated costs for systems design and enhancement, offset in part by decreases in various general and administrative expense accounts.

- The budget assumes $11.6 million for the New York State Cost Recovery Fee assessment under Public Authorities Law Section 2975 and also includes $913,000 for a payment required to be made to the State general fund as included in the Governor's Executive Budget.

- The budget includes $3.1 million for capital assets (CES and CEF system development costs, information technology upgrades, building improvements, furniture, fixtures and equipment costs, and a new fleet vehicle).

- The restricted net position, generally the difference between cumulative revenues and expenses, is projected to decrease by $224.7 million due to the "bill-as-you-go" approach under the CEF; NY Green Bank net position is anticipated to increase by $194.2 million based on cumulative commitments in excess of cumulative capitalization received through fiscal year 2016-17; and unrestricted net position is anticipated to remain at the historical $3 million level.

Mr. Daly commended the Authority on its austerity with regard to salary and benefit costs.

In response to an inquiry by Mr. Willis, Mr. Pitkin clarified the funding of CES administrative and start-up costs and how those expenses will be covered going forward.

In response to an inquiry by Mr. Willis as to the continued adequacy of the $3 million in unrestricted net position, Mr. Pitkin stated that Authority management believes that amount to be sufficient, in recognition of funding sources and the level of reserves. Mr. Rhodes added that any unexpected demands would be covered by this unrestricted amount. However, larger demands would likely not be unexpected in nature and current mechanisms allow the Authority to fund those rather readily through appropriate revenue streams. Mr. Pitkin and Mr. Rhodes provided additional clarification sought by Mr. Koh on this issue with regard to what the funds represent and how they could be affected by the timing of incoming collections and outgoing expenses.

Mr. Daly's understanding that Authority expenses will be higher than Authority revenue in the coming year given the status where the Authority is in its "bill-as-you-go" transition was confirmed by Mr. Pitkin, who added that in fiscal year 2019-2020, Authority expenses will better match Authority collections.

Based on the reports and discussions regarding the Authority's Budget for fiscal year ending March 31, 2017, as presented, upon motion duly made and seconded, and by unanimous voice vote, the Committee recommended that the full Board adopt the resolution.

Resolution

> RESOLVED, that the proposed fiscal year 2017-18 Budget and Financial Plan submitted to the Members for consideration at this meeting, with such non-material, editorial changes and supplementary schedules as the President and Chief Executive Officer, in his discretion, may deem necessary or appropriate, be and it hereby is recommended for approval by the Board for submission to the persons designated in Sections 1867(4) and 2801 of the Public Authorities Law.

Resolution Regarding Amendments to the Operating Plan for Investments in New York Under the CO_2 Budget Trading Program and the CO_2 Allowance Auction Program (RGGI Operating Plan)

John Williams, Director of Policy and Regulatory Affairs, began his presentation by describing the stakeholder process that is undertaken pursuant to the RGGI program regulations. The annual stakeholder meeting was held in Albany on December 14, 2016. Participants were provided a draft of the amendment to the Operating Plan in advance of the meeting and written comments were accepted through January 6, 2017. Mr. Williams also reminded the Members that the presentation at this April meeting, rather than in June, signifies a shift in schedule in presenting these amendments to the Committee and the Board. This shift in schedule is to better synchronize these actions with the Members' review of the overall Authority budget, providing for an opportunity to adopt the RGGI Operating Plan prior to the start of the new fiscal year.

Mr. Williams provided a description of the revenue projections stating that, last year, the Operating Plan identified a deficit of over $22 million, despite that actual revenues resulted in a surplus of $800,000. For the current fiscal year of 2016-2017, the average allowance price is estimated to be $4.52. For the upcoming fiscal year 2017-2018, given program review and regional modeling output, a conservative scenario estimates allowance prices to be approximately $7.

In response to an inquiry by Mr. Daly as to the drivers of the fluctuations and volatility in allowance prices, Mr. Williams stated that much is attributable to reactions from the market in anticipation of the future look of the program given recent regulatory events. Mr. Rhodes added that, specifically, this volatility is at least in part attributable to the status of the federal Clean Power Plan. Mr. Daly agreed with the $7 per allowance base case, but given the possible range of outcomes, stated that it would be good to know the range of outcomes and, specifically, what the low point might be.

In response to an inquiry by Mr. Kauffman regarding proposed changes to the cap by New York that would serve to retain consistent carbon dioxide cap reductions to the power generation sector, Mr. Williams stated that the proposed program changes synchronize well with the scenario that was selected for the allowance projection. Mr. Williams confirmed that the proposed cap changes would represent a material change in the program during years 2021 through 2030, with a consistent 3% reduction, which would likely have an upward effect on allowance prices.

In response to an inquiry by Mr. Koh, Mr. Williams clarified some of the finer points and assumptions taken into account in conducting the regional electric system modeling. Mr. Rhodes added that this modeling was conducted on behalf of the RGGI states, and not specifically at the behest of New York, and some of which may not share a similar agenda. In response to an inquiry by Mr. Koh, Mr. Williams stated that the analysis did make certain assumptions about federal policy, but that issue will be revisited.

In response to an inquiry by Mr. Willis with regard to whether RGGI fees have had any impact on the reduction of carbon, Mr. Williams stated that it is challenging to tease out the definitive causes of emission reductions, particularly given the decrease in natural gas prices and other potential factors.

In response to a request by Mr. Daly with regard to tracking auctions and reporting back to the Board, Mr. Williams agreed that staff will reexamine the status after six months.

Mr. Williams stated that proposed program allocations are $102 million in the current fiscal year, and about $153 million for the 2017-2018 fiscal year. Based on program allocations across the two years, this will lead to a cumulative deficit at the end of fiscal year 2017-2018 of about

$18.7 million. However, this is not a cash flow analysis, so when accounting for the expenditure rates but not potential new revenues, staff projects that there is sufficient cash on hand to meet all current obligations, even if no new revenue is realized until after the fiscal year 2019-2020.

Mr. Williams clarified that what is being presented is a budget for the annual program portfolio, as opposed to a cash flow analysis. Mr. Pitkin stated that the current cash flow analysis does show the need for additional revenues within a three-year time period. Mr. Rhodes provided additional information with regard to RGGI funds that are allocated to ensure fuel neutrality for certain CEF program efforts. Mr. Pitkin added that certain program initiatives are for a one-year term, necessitating future year allocation plans for any efforts requiring additional commitments or adjustments.

In response to an inquiry by Mr. Willis with regard to how much fluctuation in the auction credit price the Authority could weather before experiencing any cash flow implications, Mr. Pitkin shared that an allowance price of around the $4.50 level, in his estimation, would be the worst-case scenario (which would represent about $60 million in lost revenue in the coming year). However, in his opinion, Mr. Pitkin offered that even under that scenario, it would be a manageable event given programmatic planning into the out years. Mr. Kauffman expanded on the concerns expressed by distinguishing a potential cash flow issue from a programmatic planning issue, stating that he would characterize the Board's concern as one of ensuring that a sufficient programmatic contingency plan exists that could address any sudden cash flow changes. Mr. Rhodes added that it may be helpful to the Board to receive an indication from staff as to where the proposed RGGI expenditures fall on a risk continuum.

Mr. Koh stated that, if the proposed budget is designed to achieve the objectives of the agency and that under- or over-committing that budget would not meet the objectives of the Authority, ratepayers, or the State, the Board is tasked with ensuring that the margin of operational safety is maintained and not based on a mismatch of projected revenues and expenditures. Given that, Mr. Koh suggested that the comfort level of the Board would likely be enhanced by a process for which Authority staff have analyzed the inherent risks in expenditures versus projected revenues, and one that also accounted for the margin of time that would be needed to adjust should projections fall outside of the estimated range. He also stated that this analysis should include some absolute indications of the range of adjustments that could be made based on overall past performance and the volatility of revenues and expenditures.

Mr. Daly highlighted the distinction between the differing approaches needed for forecasting within a year, as opposed to forecasting across multiple years, particularly given that the current status reflects coming out of a year that had a large deficit.

Mr. Rhodes stated that he would reflect on this discussion and that he understood the request to include the formation of a contingency plan.

In response to an inquiry by Dr. Thorndike, Mr. Williams confirmed that, with the exception of a few specific legislative initiatives, there were no major substantive changes. However, he emphasized that the programmatic efforts show a stronger link between CEF and RGGI-funded activities, particularly with regard to energy efficiency activities.

Mr. Willis added that, by continuing the level of program activity, the coming year will end with another deficit, albeit a lower one, assuming the projected level of revenues is realized.

In response to a request by Mr. Shah and Mr. Willis for the provision of additional analysis with regard to how much the programs are achieving, Mr. Rhodes clarified that the metrics may be different than those used for other types of programs. Mr. Kauffman agreed that this type of information should be provided, acknowledging that when it is conveyed may be a function of the currently established and periodic nature of reporting on certain efforts to the Board. Mr. Shah stated that it would be useful to have some reporting of the metrics that coincided with approval of the budget.

In response to confirmation requested by Mr. Koh that, as a result of prior program performance, the proposed budget allocations will result in similar performance and that subsequent data will support these recommendations, Mr. Rhodes concurred and agreed to provide that data prospectively in the future.

At the conclusion of the presentations and discussions, the PPC voted unanimously to recommend that the full Board approve the proposed amendments to the RGGI Operating Plan.

Resolution

> RESOLVED, that revisions to the "Operating Plan for Investments in New York Under the CO_2 Budget Trading Program and the CO_2 Allowance Auction Program" as presented to the Members for consideration at this meeting, with such non-substantive, editorial changes and supplementary schedules as the President and Chief Executive Officer, in his discretion, may deem necessary or appropriate, are adopted and approved;
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> AND BE IT FURTHER RESOLVED, that the Members direct the President and Chief Executive Officer to develop a revised operating plan incorporating such revisions as soon as reasonably possible.

Other Business

Mr. Willis indicated that the last item on the agenda was other business. 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. Milonovich

Valerie S. Milonovich
Secretary to the Program Planning Committee

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ANDREW M. CUOMO
Governor

RICHARD L. KAUFFMAN
Chair

JOHN B. RHODES
President and CEO

REVISED NOTICE OF MEETING AND AGENDA

January 19, 2017

TO THE MEMBERS OF THE PROGRAM PLANNING COMMITTEE:

PLEASE TAKE NOTICE that a meeting of the Program Planning Committee (the 97th meeting) of the New York State Energy Research and Development Authority ("Authority") will be held at the office of the New York State Dormitory Authority ("DASNY"), One Penn Plaza, 52nd Floor, New York, New York, and in the Authority's Albany Office located at 17 Columbia Circle, Albany, New York, on Tuesday, January 24, 2017, commencing at 12:00 p.m., for the following purposes:

1. To consider and act upon the Minutes of the ninety-sixth (96th) meeting of the Program Planning Committee held on September 20, 2016.

2. To receive a report from the Treasurer and to consider and act upon a resolution recommending the approval of the Authority's fiscal year 2017-2018 Budget.

3. To consider and act upon a resolution recommending approval of revisions to the plan entitled *Operating Plan for Investments in New York Under the* CO_2 *Budget Trading Program and the* CO_2 *Allowance Auction Program*.

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. In order to expedite the entry procedures established by the building management, any members of the public planning to attend the meeting at DASNY's office should notify DASNY's receptionist at 212-273-5000, 24 hours in advance of the meeting, and must be prepared to show valid photo identification upon arrival at One Penn Plaza.

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 A. Milonovich

Valerie S. Milonovich
Secretary to the Program Planning Committee