

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

Minutes of the 89th Meeting
Held on September 8, 2014

Pursuant to a Notice and Agenda dated August 27, 2014, the 89th meeting of the Program Planning Committee (“Committee”) of the NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY was convened at 11:30 a.m. on Monday, September 8, 2014, in the Authority’s Board Room at 17 Columbia Circle, Albany, New York and at the Authority’s New York City Office at 1359 Broadway, New York, New York. The two locations were connected by videoconference.

The following Members of the Committee were present in New York City, unless otherwise indicated:

Mark Willis, Committee Chair
Kauffman, Richard (Albany)
Charles (“Chuck”) Bell
Jay Koh
Jigar Shah
Elizabeth W. Thorndike, Ph.D.

Also present in either New York City or Albany were: Gil Quiniones, Member of the Board, John B. Rhodes, President and Chief Executive Officer of the Authority; David Margalit, Chief Operating Officer; Jeffrey J. Pitkin, Treasurer; Noah Shaw, Senior Advisor to the President; Valerie S. Milonovich, Senior Counsel and Secretary to the Committee; and various other members of the Authority staff.

Sherburne (“Shere”) Abbott participated by telephone but did not vote. Ken Daly and John McAvoy were unable to attend.

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 August 26, 2014. Each of the Committee members introduced themselves.

Approval of June 10, 2014 Minutes

The first agenda item concerned the approval of the minutes of the 88th meeting of the Committee held on June 10, 2014. Upon motion duly made and seconded, and by unanimous voice vote, the minutes of the 88th meeting of the Committee were approved.

Remarks from the President and CEO on Future Directions of the Authority

Mr. Rhodes welcomed the new members of the Committee and stated that this is a period of transition, not only for the Authority, but also for the other State entities working on the State’s energy portfolio. He described the recent activities and regulatory proceedings initiated by the

New York State Public Service Commission, including the Reforming the Energy Vision (REV) proceeding, the New York Green Bank (Green Bank), the NY-Sun Program, and the Clean Energy Fund (CEF) proceeding.

Mr. Rhodes stated that New York has been a leader on energy issues and that its energy programs have had great success. Although the programs have and continue to perform well, collectively, they are falling short from what is necessary and what is possible to reach new goals. He stated that the approach of providing consumer incentives was appropriate for its time, but recently the experience has been one of limited success, as the amount of needed investment is many times greater than the current public financial support. Mr. Rhodes stated that it is a task of the Authority to address barriers to participation in order to increase program activity. Mr. Rhodes provided examples of these new efforts in the context of the Green Bank which is identifying and addressing gaps and barriers in the market of financing clean energy. He also mentioned that the NY-Sun Program is designed to take advantage of practices that exist elsewhere and to use the power of competition to reduce costs that will reduce reliance on subsidies. He stated that the focus of the CEF will be on energy efficiency and non-solar renewables and will also expand energy markets by addressing barriers. Within the CEF, there will continue to be a role for incentives or subsidies, although under prescribed circumstances. He closed by stating that all of the mentioned activities will result in changes for the Authority and its partners.

Mr. Willis stated that, in light of the addition of new Committee members, he recently provided a description of the role and responsibilities of the Committee to each Member so as to encourage active participation.

Revised Budget for FY 2014-15

Treasurer Jeff Pitkin reported on the revisions to the Authority's Budget for Fiscal Year 2014-15, which was originally approved at the January 2014 Board meeting. The Members were asked to recommend adoption of a resolution by the full Board approving revisions to the Authority's Budget for FY 2014-15.

Mr. Pitkin reported that the revised Budget decreases total revenues by \$66.5 million to \$768.3 million. System Benefits Charge (SBC) revenue decreased under the Energy Efficiency Portfolio Standard Program (EEPS) by \$94 million. Partially offsetting this decrease was an increase in Regional Greenhouse Gas Initiative (RGGI) allowance auction proceeds, which were increased by \$35.8 million due to higher than expected proceeds from the 2014 auction proceeds.

The Revised Budget decreases total expenditures by \$36.7 million to \$710.8 million. The decrease is primarily due to a reduction in program expenditures of \$36.4 million due to changes in the projected expenditures for FY 2014-15, based on prior year expenses. Salaries and benefits decreased by \$2.6 million to reflect actual salary costs for the first quarter of the fiscal year and projected salary costs for the remainder of the fiscal year.

The revised revenues, expenditures, and capital asset additions included in the budget result in a projected balance of an unrestricted net position of \$2.5 million at the end of the year, which is a \$500,000 decrease from the original budget. Mr. Pitkin believes that this balance maintains an appropriate level of funding to address short-term unforeseen expenditures, and allows for the

use of limited unrestricted revenues to fund critical programs. In addition, Mr. Pitkin reported that it is anticipated that revenues and expenditures for fiscal year 2015-16 will permit the restoration of the balance to \$3 million, which is consistent with the amount maintained for several years.

In response to an inquiry by Mr. Koh, there was a brief discussion with regard to determining the appropriate amount of the Authority's cash reserve. Mr. Pitkin explained that since Authority funding is primarily multi-year, this balance is set aside for unforeseen circumstances that are unable to be funded through other revenue streams. He explained that a balance is maintained that is believed to be a sufficient amount of reserves for unforeseen circumstances, yet not too high as to be an inefficient use of funding. Mr. Willis added that this issue has been discussed in the past when the Board was concerned that the balance was running too low. The balance has now increased to previously held levels.

In response to an inquiry by Mr. Bell with regard to the SBC expenditures of \$94 million, Mr. Pitkin explained that this is a result of a better alignment of utility collections with program expenditures and this new timing of collections affects how they are reflected in the budget documents. Mr. Pitkin added that, overall, the expenditure rate has not varied much.

In response to an inquiry by Mr. Willis about the portrayal of Green Bank funding, Mr. Pitkin explained that the budget documents depict Green Bank operating expenses and a forecasting of fee revenues to be earned based on its capital. However, deployed Green Bank capital is depicted as commitments rather than expenditures. In response to an inquiry by Mr. Willis with regard to the responsibility of the Committee's oversight of the Green Bank, Mr. Pitkin clarified that the Authority's Audit and Finance Committee will approve the financial statements for the Green Bank, as well as the Authority overall. However, budgetary presentations that reflect operating expenses are appropriately addressed by the Program Planning Committee.

In response to a suggestion by Mr. Kauffman, staff agreed to provide the Committee with an update on Green Bank activities at its next meeting in January 2015.

The Program Planning Committee recommended that the full Board adopt the resolution approving revisions to the FY 2014-15 Budget, as provided in the meeting package.

State Appropriation Request/Preliminary Spending Plan for FY 2015-2016

Mr. Pitkin reported on the Authority's State Appropriation Request for the next fiscal year which is submitted annually to the New York State Division of the Budget and sets forth the Authority's requests for State appropriations. The Members were requested to recommend that the full Board adopt a resolution approving the submission to the Division of the Budget of the Authority's State Appropriation Request for FY 2015-16, and to review the Preliminary Spending Plan for FY 2015-16 in anticipation of the Budget to be presented to the Members for approval at the January 2015 meeting.

Mr. Pitkin reported that, for FY 2015-16, new appropriations totaling \$28.88 million are requested, an increase of \$400,000 from the FY 2014-15 enacted State budget. The increase is attributable to funding for West Valley which was addressed by the Waste and Facilities Management Committee. No change is included in the budget request for the Research and

Development (R&D) and Energy Analysis Program areas, consistent with directives from the Division of the Budget that requests not include increases in appropriations.

The State Appropriation Request also includes requests to re-appropriate amounts included in the State FY 2014-15 State Budget not fully expended for a variety of energy and environmental projects. Based on additional expenditures, the amount requested for re-appropriation is approximately \$36.6 million.

The Preliminary Spending Plan for FY2015-16 projects total revenues of \$888.2 million, an increase of \$119.8 million from the prior year. The increase is primarily due to planned increases in the collections of SBC funding approved by the Public Service Commission.

The Preliminary Spending Plan estimates total expenditures at \$838.3 million, an increase of \$127.5 million from the prior year. The increase is primarily due to an increase in program expenditures of \$124.2 million based on anticipated timing of program expenditures.

The preliminary spending amount for salaries and benefits reflects annual salaries for all staffing positions budgeted in the revised FY14-15 Budget, but reflects full year levels. The Plan includes cost of living adjustments and performance-based salary increases and payments, assuming that these are authorized for State employees for the next fiscal year. As a result of these changes, salary and benefit costs are projected to increase \$5 million to \$51.4 million, and represents about 6.1% of total expenditures.

The Preliminary Spending Plan projects to maintain the balance of unrestricted net position at the end of the fiscal year at \$3 million. As previously discussed, this is believe to be an appropriate level of funding to address short-term unforeseen expenditures and allows for the use of limited unrestricted revenues to fund critical programs.

There is no action required on the Preliminary Spending Plan, as the Budget for Fiscal Year 2015-16 will be presented for approval at the January meeting.

In response to an inquiry by Dr. Thorndike, Mr. Pitkin addressed those aspects of the FY 2015-2016 budget that are intended to mitigate the loss of the voluntary contributions of funding from the Long Island Power Authority and the New York Power Authority. In response to the specific inquiry with regard to the funds available for the Energy Analysis Program, Mr. Pitkin explained that the changes in this funding are attributable to the timing of studies used for drafting the State Energy Plan. Expressing her opinion that the budget for the Energy Analysis Program is too low, Dr. Thorndike further inquired as to whether the budget for the Program will remain at the same level, given the importance of the work and the need for sufficient staffing and oversight. Mr. Pitkin stated that other Authority resources are leveraged with a variety of other partner organizations that contribute toward energy policy activities. He also suggested that this issue could be revisited at the January 2015 meeting. Mr. Rhodes stated that he is confident that the level of work is about right for the currently identified responsibilities.

The Committee did not have any questions on the Budget presentation as described by Mr. Pitkin and no action was required on the Preliminary Spending Plan as the Budget for Fiscal Year 2015-2016 will be presented for approval at the January 2015 Board Meeting. In an oversight,

the Committee did not vote on the resolution regarding the State Appropriation Request, but no concerns were raised at the Committee Meeting and the State Appropriation Request was approved at the subsequent Board Meeting held on September 22, 2014.

Report on the Authority's Corporate Strategy Assessment and Future Directions

Sarah Osgood, Chief of Staff, provided a high level overview of the context for the Authority's shift in focus, the "behind the meter" and on-site efficiency and distributed generation activities, the programmatic approach to innovation, and the next steps.

Ms. Osgood stated that, while the current NYSERDA approach is working as intended, activities are falling short of what is needed and achievable. To realize a 50% greenhouse gas (GHG) intensity reduction by 2030 will require achievements that are far greater than that which is currently projected in the EEPs proceeding. The potential to reach higher goals exists, as the economic potential for energy efficiency in 2030 has been identified as nine times greater than the projected EEPs achievements. Achieving the new goals will require mobilizing private capital and the Authority is refocusing toward this goal with initiatives such as the Green Bank and NY Sun efforts.

In response to an inquiry by Mr. Shah about petroleum use given that the discussion centered primarily on electricity and natural gas use, Ms. Osgood explained that the current portfolio is fuel specific. However, the Authority is advocating a fuel neutral approach for the future to focus on all fuels. However, with regard to transportation the focus is on electric vehicles.

Ms. Osgood reported on the benefits to customers and the greater public for every dollar spent of the current EEPs investment. In response to an inquiry by Dr. Thorndike as to how the public benefits are derived, Ms. Osgood explained that public benefits are those that accrue to the State as a whole, to both program participants and nonparticipants. The benefits include placing a monetary value on environmental externalities, accounting for electricity generation that is avoided, among other benefits. Mr. Rhodes added that the typical calculations are developed from the Authority's Program Measurement and Evaluation Services (PMES) department.

In response to an inquiry by Mr. Willis, Mr. Rhodes differentiated the approaches between the CEF and REV. He described one of the premises of the CEF as encouraging private decision-makers to undertake actions that make economic sense, but for the lack of available information, the development of a certain technology, or the lack of an industry solution. He described a premise of REV as making a value stream associated with a particular project more readily available to participants when that investment is not apparent. REV will address location-specific system benefits that will avoid infrastructure expenditures, and provide more resiliency and reliability to consumers who may find it challenging to achieve those benefits through an energy efficiency project alone.

Ms. Osgood added that energy efficiency projects are typically found to be economically compelling, yet participation in energy efficiency programs remains lower than expected. This implies that barriers exist that impede greater participation. The Authority will focus on addressing these barriers, such as enabling markets and mobilizing investment. To identify the highest potential barriers and decision points, the Authority undertook a number of activities to

identify priorities and used market interviews to test, refine, and advance priority ideas for new interventions. The activities included input from market interviews, literature reviews, staff interviews, and an internal survey. Staff completed the initial prioritization of ideas based upon the expected impact and feasibility.

Ms. Osgood stated that the barriers are often fragmented, in that the achievable potential is often unlocked by undertaking multiple approaches. She described key barriers as structural, behavioral, and the lack of product availability. Authority staff believes that there is still a role for providing direct financial incentives. However, any provided incentives would be premised on: striving toward a future that is independent of incentives in that arena; that the incentives are investments in a public good that further enables the market; and that incentives support populations who might otherwise lack access to clean energy, such as the low-income sector.

Ms. Osgood suggested that the Authority could take on the role of creating a trusted recommendation forum by providing matches for those interested in certain technologies but do not know where to start in the clean energy marketplace. The forum could connect customers and energy service providers in ways that work best for each party. Another suggestion was the creation of a building rating system that could assist owners and prospective owners to better understand the energy efficiency potential of a building and incorporate that knowledge into their decision-making process. For the residential sector, the strategies are designed to address the major identified barriers of limited information and awareness, the lack of consideration of the value of clean energy in real properties, and focus on the key decision points of home sales, refinancing, remodeling, and equipment failure. Additional strategies include a standardized efficiency rating system, additional tools to train residential appraisers, realtors, and inspectors in the lifetime value of energy efficiency investments and in conducting audits, and to expand access to third-party financing. The ultimate goal is to realize a greater impact with fewer resources.

In response to an inquiry by Mr. Kauffman as to how to be most responsive to the market and remove barriers without presuming the needs of the market, Ms. Osgood stated that the intention is to engage with the market in a manner that the Authority has undertaken in the past. Mr. Rhodes added that, in all honesty, few of these are original ideas, but the intent is to undertake a more concerted effort to remain in touch with the market using improved energy audits, rating systems, and other mechanisms to engage in program pilots that address the identified barriers.

Mr. Shah felt that the transition could be a very difficult one and suggested that a training component may be needed, stating that the quality of talent at the Authority is high but the challenge will be in executing such a large change. He added that the manner in which the initiatives are presented leads one to conclude that the funding is coming solely from the Authority when, in fact, venture capital and other private sector investments have been made. He suggested that there should be a direct correlation between the budget and the line items.

Mr. Rhodes responded by stating that there is a desire to change the business-as-usual scenario and that a cultural change is necessary. He described the new mode as operating in a partner-centered manner. He stated that the Authority will engage in testing, measuring, and adjusting program efforts, as well as re-evaluating its procurement process so that the Authority evolves rather than engages in the old processes while merely supporting different products.

Mr. Shah stated that any new approach should discourage companies from avoiding New York State and instead become the location where new ideas are rolled out.

Mr. Koh suggested that the barriers most in need of identification are those that, if eliminated, would unlock the largest potential at the least cost. He also suggested that the path forward will be dependent on the appropriate mix of expenditures and results.

Mr. Rhodes responded to these suggestions by stating that New York is one of the most building-intensive states, particularly with dense urban areas and many existing buildings that need to be addressed to increase their affordability and resiliency. Although the Authority will need to work on all fronts to achieve its goals, the larger buildings should be targeted in the short-term, and single-family buildings should be targeted in the longer-term. He added that the Authority will be better served to focus on a few efforts and do them well.

In response to an inquiry by Mr. Willis regarding setting priorities, Mr. Rhodes explained that the Authority will focus on the identified high priority areas and those areas that achieve the highest goals for the lowest expenditures.

In response to an inquiry by Mr. Koh about what metrics will be used to measure success, Mr. Rhodes stated that the Authority will strive to determine the appropriate metrics and mechanisms, along with the appropriate construction of the portfolio to achieve success.

In response to an inquiry by Mr. Shah about determining the program area priorities, Ms. Joseph stated that the meeting presentation was intended to provide an indication of the Authority's directional shifts rather than actual priorities. However, the Authority is engaging in a thoughtful process of prioritization while embracing a model that can be adjusted. Mr. Shah added that some of the interim decisions may need to be re-examined in the future.

Ms. Osgood explained that the innovation strategy has been successful in that the Authority has successfully commercialized many clean energy technologies and many key foundational elements for innovation are now in place. However, the GHG goals are challenging and present a unique opportunity to be more strategic about future investments. A stronger focus on path-to-market will be undertaken, as well as a more optimized portfolio. A scoping process will include an examination of the readiness and potential market of specific technologies, and a mechanism to manage the Authority's projects to further ensure that the business readiness of partners is progressing as needed for successful commercial introduction. Over time, the portfolio will be rebalanced, with a portion of the portfolio to remain opportunistic in order to capitalize on new market insights.

Ms. Osgood identified the five strategic priority and target areas that will inform the majority of initial program development and investment planning as: 1) improved building performance; 2) energy system resiliency; 3) renewable and distributed energy resource integration; 4) clean transport; and 5) enabling digital energy solutions. She also identified critical stall points at which the Authority's assistance can be of particular value in accelerating innovation. These points are: at company formation, at the product development and the early growth stage, and at the first commercial use stage. The investment approaches that will be developed to address the identified stall points will directly support clean technology businesses; build the entrepreneurial

capacity for clean technology innovation, create tangible multi-use facilities and resources, and engage mid-market stakeholders.

Ms. Osgood stated that the upcoming procedural steps for the Authority include filing a Clean Energy Fund proposal. The filing will be followed by ongoing stakeholder engagement, with the possibility of technical conferences. The full schedule has yet to be determined, but the expectation is that a Public Service Commission Order will likely require the Authority to file a plan in early 2015 that identifies specific efforts to be undertaken.

Dr. Thorndike stated that the presentation was very helpful. However, she indicated that there was some terminology used that was unclear and she provided some suggestions for making the material easier to understand by the general public, stating the importance of their involvement.

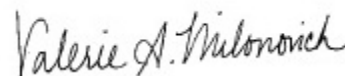
In response to Dr. Thorndike's inquiry as to which current or considered efforts will not be funded, Ms. Osgood stated that it is envisioned that the Authority will provide fewer direct project incentives and eliminate activities that may compete with utility efforts. With regard to the innovation efforts, the emphasis will be to add some discipline to the Authority's current activities.

Dr. Thorndike expressed her appreciation for the local government campaign, as she feels that expanding the outreach to local governments is very important. Mr. Rhodes also took the opportunity to acknowledge the good working relationship between the Authority and the New York Power Authority (NYPA).

Mr. Willis also stated that the presentation has been helpful and inquired as to the best way to engage members of the Committee. He also suggested a future meeting agenda item to address what has been learned. Mr. Rhodes stated that regular updates on progress will be provided at Committee meetings. He also invites individual conversations.

Upon a determination that there was no other business to come before the Committee and upon motion duly made and seconded, and by unanimous voice vote of the Members, the 89th meeting of the Program Planning Committee was adjourned.

Respectfully submitted,

A handwritten signature in dark ink, reading "Valerie S. Milonovich". The signature is written in a cursive, flowing style.

Valerie S. Milonovich
Secretary to the Program Planning Committee

NOTICE OF MEETING AND AGENDA

August 26, 2014

TO THE MEMBERS OF THE PROGRAM PLANNING COMMITTEE:

PLEASE TAKE NOTICE that a meeting of the Program Planning Committee (the 89th 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, New York, New York, on Monday, September 8, 2014, commencing at 11:30 a.m., for the following purposes:

1. To consider and act upon the Minutes of the eighty-eighth (88th) meeting of the Program Planning Committee held on June 10, 2014.
2. To receive a report from the Treasurer and to consider and act upon a resolution recommending approval of revisions to the Authority's Fiscal Year 2014-15 budget.
3. To receive a report from the Treasurer regarding the Authority's Fiscal Year 2015-16 Preliminary Spending Plan and the Authority's State Appropriation Request For Fiscal Year 2015-16 and act upon a resolution recommending approval of the State Appropriation Request for Fiscal Year 2015-16.
4. To receive a report on the Authority's Corporate Strategy Assessment and NYSERDA Future Directions.
5. 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 two business days of the meeting. The video will be posted at <http://www.nyserda.ny.gov/About/Board-Governance/Board-and-Committee-Meetings.aspx>.



Valerie S. Milonovich
Secretary to the Program Planning Committee

New York State Energy Research and Development Authority

Albany

17 Columbia Circle, Albany, NY 12203-6399

(P) 1-866-NYSERDA | (F) 518-862-1091

nyserda.ny.gov | info@nyserda.ny.gov

Richard L. Kauffman, Chair

John B. Rhodes, President and CEO

Buffalo

726 Exchange Street

Suite 821

Buffalo, NY

14210-1484

(P) 716-842-1522

(F) 716-842-0156

New York City

1359 Broadway

19th Floor

New York, NY

10018-7842

(P) 212-971-5342

(F) 518-862-1091

West Valley Site

Management Program

9030-B Route 219

West Valley, NY

14171-9500

(P) 716-942-9960

(F) 716-942-9961