NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

Minutes of the 217th Meeting Held on April 23, 2013

Pursuant to notice and an agenda dated April 2, 2013 and a revised agenda dated April 23, 2013, the 217th meeting of the New York State Energy Research and Development Authority ("Authority") was convened on April 23, 2013, at 12:30 p.m., in the Authority's New York City Office at 485 Seventh Avenue, 10th floor, New York, New York; by video conference in the Authority's Albany Office at 17 Columbia Circle, Albany, New York; and by video conference in the Authority's Buffalo Office at 726 Exchange Street, Suite 821, Buffalo, New York.

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

Francis J. Murray, Jr., President and CEO (acting as Chair for this meeting)

George F. Akel, Jr. (by video conference in Albany)

Garry A. Brown (by video conference in Albany)

Kevin Burke

Robert B. Catell

David Elliman

Joan McDonald (by video conference in Albany)

Elizabeth W. Thorndike, Ph. D.

Mark A. Willis

Members John R. Koelmel and Joseph Martens were unable to attend.

Also present were Janet Joseph, Vice President for Technology and Strategic Planning; Thomas R. Barone, Acting Vice President for Operations and Energy Services; Jeffrey J. Pitkin, Treasurer; Hal Brodie, Esq., General Counsel and Secretary; Sara L. LeCain, Esq., Senior Counsel; Gregory A. Frank, Assistant Director of Contract Management; and various other members of the staff of the Authority. In addition, Alan Michaels from the New York State

Department of Public Service and Paul Krekeler from the New York State Department of Transportation were in attendance at the Albany location.

Mr. Murray explained that as President and CEO, he is authorized by the Authority's Bylaws to exercise the powers of the Authority's Chair when that position is vacant, as it is now. He stated that he was chairing the Board meeting and participating as a voting Member of the Authority. Mr. Murray then called the meeting to order and noted the presence of a quorum. He stated that the meeting notice and agenda were mailed to the Members and press on April 2, 2013 and a revised agenda was issued on April 23, 2013. Mr. Murray directed that a copy of the notice and agenda and a copy of the revised agenda be annexed to the minutes of the meeting.

Mr. Murray updated the Members on various activities of the Authority since the previous Board meeting. First, he reported that the Authority is deeply engaged in moving forward with a number of initiatives from the Governor's State of the State. Most important is the Green Bank. Mr. Murray explained that the Authority's Treasurer, Jeffrey J. Pitkin, is leading the internal task force for this initiative. The Authority is retaining McKinsey & Company to assist with market research and development of a business plan. Meanwhile, the Authority's General Counsel, Hal Brodie, is handling the legal work and is working with Department of Public Service ("DPS") staff to develop the process for seeking funding for the Green Bank.

Next, Mr. Murray reported that the Authority is actively involved in the implementation of a number of the recommendations of the Moreland Commission. The key area in which the Authority is involved is fuel supply. Staff is working to develop and implement a grant program to prewire a series of designated gasoline stations in the downstate region. In addition, the Authority is developing a program to provide for the availability of back-up generators at these stations in the event of a fuel supply emergency. The Authority is also working with the Office of General Services to develop a strategic fuel reserve in partnership with the petroleum industry. Lastly, staff is working to develop a resiliency fund which will be designed to increase the resiliency of energy systems in buildings in the disaster areas.

Mr. Murray next explained that the New York State Legislature has directed the Authority to conduct a study to explore the establishment of microgrids in New York State. This initiative is being lead by Clean Energy Research and Market Development Program Director, Mark Torpey.

Next, Mr. Murray reported that Authority staff is working on the development of the New York Sun Initiative. This initiative is designed to increase the number of solar photovoltaic ("PV") systems in New York State. As part of his Earth Day announcement, Governor Cuomo highlighted the NY-Sun program and announced his proposal to provide \$150 million annually in long-term funding to support the development of PV across the State.

In addition, the Governor announced the Climate Change Science Clearinghouse. The Authority is funding its development by Northeast States for Coordinated Air Use Management, Cornell University and SUNY College of Environmental Science and Forestry.

Mr. Murray indicated that the Authority is continuing to move forward on the recommendations of the Energy Highway Task Force. The Authority is working closely with the New York State Public Service Commission ("PSC") and the New York Power Authority ("NYPA") to implement the recommendations.

Mr. Murray also reported that the Governor has called for a tightening of the Regional Greenhouse Gas Initiative ("RGGI") emissions cap. In order to implement this change, the Authority is working closely with the Department of Environmental Conservation to amend existing regulations to incorporate a lower emissions cap and other necessary programmatic changes. Staff is also revising the RGGI Operating Plan which will be presented to the Members for approval in June 2013.

Mr. Murray concluded his report by announcing that the Authority has recently received two awards. First, the U.S. Environmental Protection Agency recognized the Authority by rewarding it with a 2013 Energy Partner Award. Second, the American Council for an Energy-Efficient Economy presented the Authority with several awards for exemplary energy efficiency

programs, including the On-Bill Recovery Financing Program, the New Construction Program, and the Existing Facilities Program.

Mr. Murray then asked Gregory Frank, Assistant Director of Contract Management, to discuss the Periodic Procurement Contracts Report. Mr. Frank stated that pursuant to Public Authorities Law Section 2879, the Members are requested to adopt a resolution approving the Periodic Procurement Contracts Report covering the period December 16, 2012 through March 15, 2013. The report summarizes 1,383 procurement contracts exceeding \$5,000 that were initiated or modified during the period. Over 98% of the procurement contracts were competitively selected, and 96% of the dollars committed resulted from competitive procurement. All of the actions were in compliance with the procurement contract guidelines. The report also summarizes an additional 1,416 procurement contracts that are expected to be executed by the Authority, that have a period of expected performance in excess of one year. These contract actions total approximately \$336 million.

Mr. Frank stated that the Members have also been provided with a periodic report on Authority compliance with Article 15-A of the Executive Law, which requires public authorities to make a good faith effort to solicit active participation by Minority and Women-Owned Business Enterprises ("M/WBEs") in certain contracts. Of the 13 contracts subject to Article 15-A which were initiated or modified during the reporting period, 46% of the total number of contracts were awarded to certified M/WBEs, representing 32% of the total contract amounts.

In response to an inquiry from Mr. Elliman regarding the inclusion of biofuels in the definition of renewables under the State's Renewable Portfolio Standard ("RPS"), Ms. Joseph explained that the PSC develops the rules for the RPS and therefore the Authority's discretion is limited. Ms. Joseph explained that the Authority has conducted several studies on lifecycle issues for biofuels. However, the State has a definition of biofuel which is accompanied by specific tax credits for ethanol, but the definition does not address the source of the feed stock. Ms. Joseph explained that while the studies have had an education component, they have not been updated for several years.

Mr. Murray stated that Counsel's office has compared the lists provided by Members of entities with which each Member is associated and which he or she believes may enter into contracts with the Authority to the list of contracts in the Periodic Procurement Report. Counsel's office reports just a few potential conflicts. Specifically, the Authority has entered into or anticipates entering into contracts with Central Hudson Gas & Electric, Con Edison Solutions, and Consolidated Edison Company, identified by Garry Brown; Orange and Rockland, Con Edison Solutions, Consolidated Edison Company, and Honeywell International Inc., identified by Kevin Burke; various SUNY campuses and affiliates, identified by Robert Catell; Cornell University, identified by Dr. Elizabeth Thorndike; New York University and JP Morgan Chase, identified by Mark Willis; and Urban Electric Power (UEP), identified by David Elliman.

Whereafter, upon motion duly made and seconded, and by voice vote of the Members present, the following resolution was adopted. Mr. Brown, Mr. Burke, Mr. Catell, Dr. Thorndike, Mr. Willis, and Mr. Elliman each abstained from the vote solely with regard to contracts involving the respective entities identified by each of them above.

Resolution No. 1356

RESOLVED, that the Periodic Procurement Contracts Report, covering the period December 16, 2012 through March 15, 2013, as presented at this meeting, including but not limited to the contracts identified therein which have been, or are expected to be, executed and which do have, or are expected to have, a period of performance in excess of one year, is hereby approved in accordance with Public Authorities Law Section 2879(3)(b)(ii).

Mr. Murray stated that the next item on the agenda was a report from the Chair of the Program Planning Committee ("PPC"), Mark Willis, on program evaluation and metrics. Mr. Willis stated that the PPC met on April 16, 2013 and the presentation focused on the Authority's corporate and program performance metrics.

Mr. Willis explained that the presentation took a different approach from previous years and focused more on what the Authority is learning from program metrics and how performance metrics are used to inform future initiatives and strategies. The PPC looked at the performance

metrics within a risk assessment framework and discussed the policy, market, and operational risks and opportunities to the Authority which may affect program performance.

Staff reviewed progress with respect to five major goals: 1) energy efficiency; 2) renewable energy; 3) the clean energy economy; 4) clean environment; and 5) customer service. Staff have set aggressive goals in these areas. In setting these goals, staff need to make many assumptions and projections about market conditions and consumer behavior. Staff develop these goals within a policy context, which are often driven by a statewide target. The estimates are based upon the best information available at the time, but it is not always possible to project what is going to happen in the market.

The PPC discussed the importance of assessing value in all areas, along with tracking progress toward quantitative targets. The Authority has efforts underway to do this.

In the energy efficiency area, the Authority did not hit its 2012 targets, and the PPC discussed the challenges and opportunities that would need to change to get closer to the goal. Mr. Willis indicated that some of these changes are within the Authority's control and some of are not. Overall, the Authority's energy efficiency programs are still demonstrating great value, showing that for every \$1 spent on energy efficiency, \$3 in savings is realized by participants.

In the renewables area, the PV programs are meeting and exceeding their targets, but the large-scale Main-Tier RPS Program is slightly below target. The PPC discussed the major drivers that are affecting program progress and cost, such as the low price of natural gas and the continued uncertainty regarding federal tax credits.

Mr. Willis reported that the Authority met its major clean energy economy goals for 2012, including leveraging and product commercialization targets.

With regard to customer service, the Authority continues to process its invoices on time with a 99.99% success rate for 67,000 invoices in 2012. The Authority also set targets for contracting time. The Authority met the targets for contracting time for open enrollment

solicitations. While it made progress relative to last year, the Authority is not yet hitting its target for the amount of time that it takes to contract from a solicitation. The PPC also discussed results from customer satisfaction surveys that have been conducted over the years, and Mr. Willis reported that the results of the customer satisfaction surveys are very positive, although there are a few areas that the Authority could improve upon.

The PPC looked at a few illustrative case studies. These case studies brought together performance metrics and evaluation results with an assessment of risks and opportunities to ultimately inform proposed changes going forward. The PPC discussed the Green Jobs-Green New York Program, the NY-Sun Program, and the CleanTech Incubator Program.

Mr. Willis indicated that the move to a performance management and metrics system at the Authority is a work in progress. The Authority has made great strides in establishing metrics, tracking metrics, and developing and implementing a rigorous evaluation approach. As an organization, it is now trying to move to a more systematic/enterprise-wide means of "learning" from its performance metrics – to improve existing programs and inform future program design – and ultimately to deliver more value.

Mr. Murray stated that the next several agenda items pertained to matters addressed by the Audit and Finance Committee ("A&F Committee") earlier that day, and he asked Committee Chair, Robert Catell, for a report. Mr. Catell stated that the A&F Committee heard a detailed presentation from KPMG on its proposed process for conducting the fiscal year 2012-13 independent audit. He reported that the Committee was able to ask questions and was satisfied with the proposed procedures for conducting the audit. The Committee thought the approach was reasonable and that the end product would meet the requirements of the Public Authorities Accountability Act and the State Comptroller's regulations, including the delivery of all required opinions.

Mr. Murray stated that the next items considered by the A&F Committee were a report from the Authority's Internal Control Officer and to consider a resolution approving amendments to the Authority's Internal Control Manual. Mr. Catell stated that the A&F Committee received

a report from the Internal Control Officer, Jeff Pitkin, and considered a resolution approving proposed changes to the Authority's Internal Control Manual. The proposed amendments include adding policies addressing Project Sunlight and Authority use of discretionary funds, and various updating, editorial, and clarifying changes.

The Internal Control Manual is being amended to reflect new government transparency requirements imposed by Project Sunlight, which was established as part of the Public Integrity Reform Act of 2011. The requirements of Project Sunlight were discussed with the Members at the January meeting.

The Internal Control Manual is also being amended to establish a policy for determining the appropriate use of the Authority's discretionary funds, based upon guidance issued by the Authorities Budget Office ("ABO"). The ABO guidance explicitly requires all public authority boards to adopt written policies that specifically delineate the proper use of an authority's discretionary funds. In addition to providing specific examples of inappropriate uses of discretionary funds, the new section states that the use of discretionary funds must advance the mission of the Authority and may not be used to support the private or personal interests of the Authority's Members, Officers, or employees. The amendments to the Internal Control Manual provide additional clarification to the Authority's already existing policies regarding the expenditure of discretionary funds.

Mr. Catell explained that consistent with requirements of the Internal Control Manual, as Internal Control Officer Mr. Pitkin will be convening a multi-disciplinary staff working group to review the Authority's policies and procedures to ensure that they reflect current practices, that they provide appropriate and effective internal controls, and to consider any editorial or clarifying changes. This comprehensive and formal review of the internal control systems supplements the ongoing assessments which occur on a regular basis. Any additional proposed changes to the Internal Control Manual resulting from this review will be presented to the Members at a future meeting.

The Committee unanimously recommended approval of the resolution.

In response to an inquiry from Mr. Willis, Mr. Pitkin indicated that the limitation on sponsorship was for reimbursement for individual staff members to participate in organizations. However, as an organization the Authority has the ability to provide support for organizations consistent with the Authority's mission.

In response to an inquiry from Mr. Burke, Mr. Pitkin explained that the Authority's policy manuals have more detail and provide references to each policy. Mr. Burke suggested combining all the various policies into one document.

Whereafter, upon motion duly made and seconded, and by voice vote of the Members, the following resolution was adopted.

Resolution No. 1357

RESOLVED, that the amendments to the Internal Control Manual, as submitted at this April 23, 2013 meeting and as revised by Members at the meeting, are hereby approved and adopted.

Mr. Murray indicated that the next item on the A&F Committee agenda was a report from the Director of Internal Audit on recent internal audit activities. Mr. Catell next reported that Mark Mitchell, the Authority's Director of Internal Audit, provided the A&F Committee with a report on the recent activities of internal audit. Mr. Catell explained that there are three audits and one other matter in progress. The audit fieldwork for these audits has been completed and Mr. Mitchell anticipates providing final reports to the Members in June and July of this year.

The other matter that is in progress is the handling of a complaint referred to the Authority by New York State's Office of the Inspector General, which was discussed with the Members at the January 2013 Board Meeting. Mr. Mitchell anticipates providing a report on the results of the investigation during the June 2013 Committee meeting.

In addition, Mr. Mitchell indicated that once the audit reports are complete, staff will begin two more audits that were approved by the Members at the June 2012 Committee Meeting. Both are contract audits of large contracts the Authority has for implementation services.

Mr. Murray stated that the next agenda item pertained to matters addressed by the Waste & Facilities Management Committee ('W&FMC'), and he asked Committee Chair Dr. Elizabeth Thorndike to report on discussions at the W&FMC meeting. The W&FMC received a status report from Director Paul Bembia on West Valley Site Management Program activities. Mr. Bembia briefed the W&FMC on four items: the State-Licensed Disposal Area; work being done on the Retained Premises; the Phase 1 studies; and the West Valley Demonstration Project.

First, regarding the State-Licensed Disposal Area, Mr. Bembia reported that West Valley Site Management Program staff is observing an increase in the leachate level in disposal Trench 14. The leachate remains contained in the trench, and this increase does not present a threat to public health and safety or the environment. However, it is being continuously monitored and carefully evaluated. Mr. Bembia will keep the W&FMC informed about this development as the evaluation proceeds.

In response to an inquiry from Mr. Willis, Mr. Bembia indicated that the trenches are constructed in a thick, naturally occurring clay deposit. He said that water accumulation in the trenches is generally a bigger concern than water leaving the trenches because the low-permeability clay provides a barrier to water flow.

The W&FMC received an update with respect to ongoing work on both the U.S. Department of Energy ("DOE") managed portion of the site and the Authority managed portion of the Western New York Nuclear Service Center ("West Valley").

Finally, the W&FMC was provided an update on the federal West Valley Demonstration Project ("Demonstration Project") budget. The President's proposed budget for federal fiscal year 2014 includes \$64 million for the Demonstration Project, and the Demonstration Project received \$61.7 million for federal fiscal year 2013 under the Sequester. This was an increase over the expected funding level for both of these years, which was estimated to be as low as \$50 million.

Dr. Thorndike indicated that the W&FMC next received a report from Alyse Peterson on the Authority's nuclear coordination and radioactive waste policy activities. No matters were presented that require the full board's attention.

In response to an inquiry from Mr. Elliman, Mr. Bembia indicated that the minimum amount of funding needed to keep the Demonstration Project running safely is \$20 million a year. Mr. Murray explained that the Authority envisioned the clean-up as a 10-year plan with \$75 million a year from the federal government. In practical terms, a 60-65 million dollar appropriation means that the Phase 1 decommissioning will take longer.

In response to an inquiry from Mr. Burke, Mr. Murray indicated that there is still work ongoing. Mr. Bembia explained that Phase 1 includes the dismantling of the main facility and the vitrification facility, as well as the groundwater plume. Following Phase 1, DOE and the Authority will make decisions regarding the tanks, other facilities and the groundwater plume. These decisions are scheduled to be made in 2020.

Mr. Murray stated that the next agenda item was a report from Innovation and Business Development Program Manager Jeffrey Peterson on the Authority's Proof-of-Concept-Center Initiative ("POCC Initiative"). Mr. Peterson explained that the goal of the POCC Initiative is to catalyze innovation and the entrepreneurial climate for business creation and the growth of early stage clean energy companies.

The Authority has competitively selected three institutions for its POCC Initiative: Columbia University which is partnering with Stony Brook University, Brookhaven National Laboratory, and Cornell University; the Polytechnic Institute of New York University which is partnering with CUNY; and High Tech Rochester which is partnering with the University of Rochester, Rochester Institute for Technology, the SUNY Research Foundation, Alfred University, Clarkson University, and SUNY Buffalo.

The objectives of the POCC Initiative are to accelerate the commercialization of innovations out of research institutions and into the marketplace, particularly through start-ups; to match emerging clean energy technologies that have scalable commercialization potential, based on real market need, with the investment community; and to establish sustainable regional innovation ecosystems of potential investors and entrepreneurs in clean energy technologies and solidify the research institution linkages to them.

The POCC Initiative activities include roundtable events; entrepreneurial boot camps; mentoring relationships; intellectual property reviews; customer validation; prototype development; and investor due diligence. The POCC Initiative provides quality advisors, mentors and partners to assist early stage business developers.

The agreements with the institutions include 100% performance-based payments. Each institution is provided approximately \$5 million over five years. The institution receives 20% for management tasks; 50% for application and project team tasks; and 30% or more for new start-up milestones that are achieved.

Mr. Catell commended the POCC Initiative, which he has seen at work at Stony Brook University because it brings entrepreneurs and education together.

In response to an inquiry from Chairman Brown, Mr. Peterson indicated that the licensing rights remain with the POCC institution and the Authority does not require a royalty.

In response to an inquiry from Mr. Elliman, Mr. Peterson explained that the intellectual property already exists and the Authority is merely helping the products reach the marketplace. Mr. Brodie explained that some of the Authority's programs do require recoupment, but this initiative is really to fund the center and not the invention. Mr. Peterson indicated that the hope is that the institution will receive some value back.

In response to an inquiry from Mr. Burke, Mr. Peterson explained that New York University has an existing clean tech incubator funded, in part, by the Authority. However, the POCC Initiative is focused on pre-incubation. At the end of this process, the goal is to have participants form a company. The \$5 million payment over five years is based on input from

stakeholder meetings. Staff noted that \$2 million a year would be a preferable level of support, but the Authority does not have that level of funding.

In response to an inquiry from Mr. Willis, Mr. Peterson indicated that the Authority only executes one agreement with each facility. Each proposer is required to include metrics that are important to the institution to ensure that the innovation continues. The Authority also collects information on who attends events. Since the agreements include the performance payments based upon hitting specific milestones, the success of the companies involved will become a key metric.

Ms. Joseph explained that the POCC Initiative is a major component of the Clean Energy and Market Development Program. Mr. Murray added that staff felt the funding level was appropriate based upon the quality of the proposals received.

Mr. Murray then asked if there was any further business.

Dr. Thorndike reported that the Authority's annual meeting with the environmentalists was successful and the Members will be receiving a summary from Mark Watson on the items discussed. This is an important constituency that supports the Authority's work.

Mr. Catell reported that the 2013 Advanced Energy Conference will be at the Javits Center during the week of April 30, 2013. This is the seventh year for the conference, which was postponed due to Superstorm Sandy. There will be over 3000 speakers in attendance, including Mayor Bloomberg. Both the Authority and the PSC sponsorship has been instrumental.

Thereafter, there being no other business, upon motion duly made and seconded, and by unanimous voice vote of the Members, the meeting was adjourned.

Hal Brodie Secretary



April 23, 2013

REVISED NOTICE OF MEETING AND AGENDA

TO THE MEMBERS OF THE NEW YORK STATE ENERGY RESEARCH AND **DEVELOPMENT AUTHORITY:**

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- 1. To receive a report from the Program Planning Committee on program evaluation and metrics.
- 2. With respect to matters considered by the Audit and Finance Committee:
 - (a) to discuss the independent audit of the Authority's financial statements and the Authority's OPEB Trust for fiscal year 2012-13;
 - (b) to receive a report from the Internal Control Officer and to consider and act upon a resolution approving changes to the Internal Control Manual; and
 - to receive a report from the Director of Internal Audit on recent internal audit (c) activities.
- 3. To receive a report from the Waste and Facilities Management Committee.
- 4. To consider and act upon a resolution approving a periodic procurement contracts report.
- 5. To receive a program report.
- 6. To transact such other business as may properly come before the meeting.

Members of the public may attend the meeting at any of the above locations. 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/en/About/Board-Governance/Board-and-Committee-Meetings.aspx.

> Hal Brodie Secretary

New York State Energy Research and Development Authority

(F) (716) 842-0156

Buffalo

(F) (518) 862-1091



April 9, 2013

NOTICE OF MEETING AND AGENDA

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> Hal Brodie Secretary

New York State Energy Research and Development Authority

(F) (716) 842-0156

New York City

Suite 1006

485 Seventh Avenue

(F) (716) 942-9961