

NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

Minutes of the 213th Meeting

Held on April 16, 2012

Pursuant to notice and an agenda dated April 3, 2012, the 213th meeting of the New York State Energy Research and Development Authority (“Authority” or “NYSERDA”) was convened on April 16, 2012, 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. (Albany)

Robert B. Catell

Garry A. Brown (Albany)

David Elliman

Elizabeth W. Thorndike, Ph. D.

Kevin Burke

Mark A. Willis

Joan McDonald

Members Joe Martens and Michael Townsend were unable to attend.

Also present were Robert G. Callender, Vice President for Operations and Energy Services; Janet Joseph, Vice President for Technology and Strategic Planning; Jeffrey J. Pitkin, Treasurer; Hal Brodie, Esq., General Counsel and Secretary; David A. Munro, Deputy Counsel; Cheryl L. Earley, Director of Contract Management; and various other members of the staff of the Authority. In addition, James Austin from the Department of Public Service (“DPS”) and

Jared Snyder from the Department of Environmental Conservation (“DEC”) were in attendance at the Albany location. Mike Bailey, a member of the public, was in attendance at the New York City location.

Mr. Murray explained that as President and CEO, he is authorized by NYSERDA’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 3, 2012. Mr. Murray directed that a copy of the notice and 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 budget enacted by the Legislature for fiscal year 2012-13 included the budget amount for NYSERDA that was recommended by the Board and proposed by the Governor.

Mr. Murray also reported that on March 31, 2012, NYSERDA submitted five petitions to the Public Service Commission (“PSC”). Those petitions: (1) addressed NYSERDA targets under the Energy Efficiency Portfolio Standard (“EEPS”) program; (2) sought continued funding for workforce development training; (3) sought funding for the Combined Heat and Power program as requested by the PSC, proposing two alternative funding mechanisms; (4) sought additional funding for the EmPower program, the Authority’s energy efficiency program for low-income households; and (5) proposed that uncommitted Systems Benefit Charge (“SBC”) funds be used for (a) supporting a Department of Energy (“DOE”) funded energy storage hub, which will hopefully be located on Long Island; if that is not approved, supporting a DOE hub focused on smart grid technologies; (b) funding the Advanced Building Consortium solicitation that NYSERDA expects to issue shortly, which includes demonstration projects regarding deep retrofit savings in commercial buildings; and (c) funding for the Governor’s NY Sun initiative- specifically, money to address the balance of system costs associated with installation of photovoltaic (“PV”) systems.

Mr. Murray also reported that in support of the Governor's NY-SUN initiative, which calls for the doubling of 2011 customer-sited PV installations during 2012 and for quadrupling the 2011 installations during 2013, on February 14, 2012 NYSERDA filed a petition with the PSC requesting approval to reallocate uncommitted Renewable Portfolio Standard ("RPS") funds, primarily to support additional customer-sited tier PV installations. This would double the current PV funding of \$54 million to \$108 million.

Additionally, Mr. Murray stated that Governor Cuomo has called for the development of an "Energy Highway" for New York and has established a Task Force to identify opportunities for investment in the State's energy infrastructure so as to advance the policy objectives that underlie the Energy Highway. The Task Force is co-chaired by DEC Commissioner Joe Martens and Power Authority President & CEO Gil Quinones, and also includes Mr. Murray, PSC Chairman Garry Brown and Empire State Development President & CEO Ken Adams. The Task Force held an Energy Highway Summit on April 4 at Columbia University that was attended by more than 500 people, including Members Kevin Burke and David Elliman. The Task Force has issued a Request for Information, seeking to learn from interested parties what ideas they may have as well as what suggestions and specific solutions they recommend to address these policy challenges. There will be an informational session on April 19, 2012, at which time potential proposers can ask questions. Proposals are due May 30, 2012. The Task Force expects to deliver an Energy Highway Action Plan to the Governor this summer.

Mr. Murray stated that the first item on the agenda was recognizing the important contributions of Bob Callender, Vice President for Operations and Energy Services, who is leaving NYSERDA to begin a new career in the private sector. Mr. Murray asked Member Bob Catell to read a resolution commending Mr. Callender's many years of service.

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

Resolution No. 1323

WHEREAS, Robert G. Callender has been a valued employee of the New York State Energy Research and Development Authority for almost twenty five years, during which time he served in many capacities, including as Acting President and as a Vice President; and

WHEREAS, Bob has been instrumental in transitioning NYSERDA from an organization narrowly focused on energy research and development to one of the country's premier energy organizations, unique in its broad involvement in the study and implementation of energy efficiency, renewable energy, energy research and development and energy policy; and

WHEREAS, facilitating this transition required hard work, commitment, loyalty and a sense of public responsibility, all of which are traits that Bob demonstrated consistently during his long tenure; and

WHEREAS, Bob worked closely with the Members and staff over the years to develop the energy efficiency, clean technology and renewable energy programs that NYSERDA offers as well as the internal administrative processes that NYSERDA uses to make those programs available; and

WHEREAS, Bob is primarily responsible for the transformation of the Saratoga Technology + Energy Park from a contaminated Superfund site to a premier knowledge community and technology campus that is home to about 200 clean technology workers; and

WHEREAS, Bob's contributions to the Authority have benefitted customers, ratepayers and the People of the State of New York; and

WHEREAS, due in no small part to Bob's efforts, the American Council for an Energy-Efficient Economy recently found that New York is one of the leading states in the nation in energy efficiency, and ACEEE singled out NYSERDA as the "epitome of an effective and influential research and development institution;" and

WHEREAS, the Authority is grateful that Bob willingly served as Acting President in 2008-09. Bob's leadership at a critical period in NYSERDA's evolution is typical of his commitment and loyalty to both the organization and his many friends and colleagues at NYSERDA; and

WHEREAS, employees of the Authority will sorely miss Bob's knowledge, integrity, counsel and friendship.

NOW, THEREFORE, BE IT RESOLVED that the Members of the New York State Energy Research and Development Authority, assembled on this sixteenth day of April, two thousand twelve, commend Robert G. Callender, and express their deepest

appreciation, fondness and respect for his extraordinary contributions to the Authority and the betterment of the State of New York. We wish him good health and much success in his future endeavors.

Dr. Thorndike pointed out that when the STEP site was a Superfund site, its status was routinely addressed by the Waste and Facilities Management Committee. She congratulated Bob for helping transform STEP to a programmatic asset that is now addressed at the Program Planning Committee.

Mr. Callender expressed his appreciation to the Board for its kind expression and its support over the years. He indicated that his decision to depart was not easy. The Authority, its staff and the Board hold a special place in his heart, and he will deeply miss it all.

Mr. Murray stated that the next agenda item was for the Members to consider a resolution approving revisions to the Regional Greenhouse Gas Initiative (“RGGI”) Operating Plan. Mr. Murray asked George Akel, Chair of the Program Planning Committee (“PPC”), to discuss the proposed resolution.

Mr. Akel stated that the PPC met on April 12, 2012 and reviewed proposed modifications to the Authority’s RGGI Operating Plan, as presented by David Coup, Assistant Director for the Authority’s Energy Analysis Program. Mr. Coup explained that the modifications would reprogram \$12 million of funding from the Cleaner Greener Communities Program to a complementary new Regional Economic Development and Greenhouse Gas Reduction Program during calendar year 2012 to accommodate a near-term program opportunity. The intent is to replenish this funding using future RGGI auction proceeds. As part of the Governor’s transformative plans to improve New York’s business climate and stimulate economic growth, ten Regional Economic Development Councils (“REDCs”) were established and each has designed a strategic plan for its region. Within each of the REDC plans, clean energy strategies and opportunities have been identified as priority needs.

Mr. Coup explained that this new effort will be designed to support eligible greenhouse gas reduction projects that are not otherwise provided financial support by other Authority

initiatives, and which are identified as priority initiatives consistent with the REDC strategic plans. Assuming approval by the Board, it is anticipated that the new Regional Economic Development and Greenhouse Gas Reduction Program will be made available for applications in the next Consolidated Funding Application solicitation, which is anticipated in May 2012.

Mr. Coup stated that Authority Staff is developing proposed changes to the three-year RGGI Operating Plan. A final compilation of changes, along with a new three-year budget, will be discussed by the RGGI Advisory Group in May. A proposal will be submitted to the PPC and to the Board for consideration at their May and June 2012 meetings, respectively.

Mr. Akel stated that the PPC recommended that the full Board adopt the resolution approving the modifications to the RGGI Operating Plan as described in the Memorandum provided in the PPC meeting package.

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

Resolution No. 1324

RESOLVED, that the modifications to the “Operating Plan for Investments in New York Under the CO₂ Budget Trading Program and the CO₂ 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;

AND BE IT FURTHER RESOLVED, that the Members direct the President and Chief Executive Officer to develop a revised operating plan incorporating such modifications as soon as reasonably possible.

Mr. Murray stated that the next agenda item was to receive a report on program evaluation and metrics, and he asked Mr. Akel to provide this report. Mr. Akel stated that at the April 12, 2012 PPC meeting, the Committee heard presentations regarding NYSERDA’s performance metrics in the context of overall strategic planning. Presentations were given by John Williams (Program Director, Energy Analysis), Jennifer Meissner (Program Manager,

Evaluation), Dave Coup (Assistant Director, Energy Analysis), and Colleen Gerwitz (Senior Advisor for Strategic Initiatives). The presentations addressed two fundamental questions. Is the Authority making significant progress in advancing its primary goals? Is the Authority achieving results in an economically efficient manner with a positive impact on New York's economy?

The presentations covered performance metrics for NYSERDA's primary mission goals:

- increasing energy efficiency;
- diversifying New York's portfolio of energy resources;
- catalyzing a clean energy economy;
- reducing the environmental impact of energy production and use; and
- being responsive to customer needs.

Mr. Akel stated that the PPC and the Board have been requesting more information on performance metrics, and he reported that PPC members believe that staff continues to make significant progress on this front. Mr. Akel stated that the PPC members were fully engaged in this discussion. In addition to several inquiries and clarifications, the Members offered several suggestions for how NYSERDA could improve upon the presentation of metrics results. A few of those suggestions included:

- more clearly identifying embedded, external factors over which the Authority has no control, such as taking into account trends in the overall economy;
- using more commonly-used terminology and providing more context so that the information presented is more easily digestible to parties outside of the Authority;
- providing more conformity when conveying results from different program portfolios even if those results must be reported differently to other entities; and
- re-examining or recalibrating certain data collection and metrics efforts in relation to the Authority's primary mission (for example, the jobs data was discussed in this context).

Mr. Akel stated that the PPC was generally pleased with the performance demonstrated through these evaluation results. The metrics clearly show that NYSERDA continues to cost-

effectively deliver its major programs and is making major progress on its primary goals. Equally important, the results of the evaluation efforts and metrics show where there are opportunities for improvement.

Mr. Akel stated that Janet Joseph, Vice President for Technology and Strategic Planning, would present a few of the portfolio-level highlights. Ms. Joseph reported the following benefits as a result of programs offered by NYSERDA:

Economic Benefits

- More than \$4.8 billion dollars in cumulative energy bill savings has been realized through SBC and EEPS programs through 2011.
- For every \$1 in SBC and EEPS funds spent, \$2.7 in energy bill savings has been realized by participating customers.
- Benefit-cost ratios of the SBC3 energy efficiency portfolio range from 1.5 (total resource cost) to 14.0 (program administrator cost ratio with macroeconomic benefits).
- Over 5,700 net cumulative jobs (direct and indirect) have been added due to SBC and EEPS efficiency spending through 2011.

Efficient Use of Energy

- As of December 2011, over 5,600 GWh of energy is saved annually (~4% of statewide sale) as a result of energy efficiency measures installed since the origination of NYSERDA energy efficiency programs in 1998.
- Corporate electric efficiency 2011 targets were achieved; gas efficiency targets were not achieved.
- The SBC3 program has contributed 2,149 GWh to the 2010 electricity savings; 102% of the SBC3 goal has been achieved with 71% of the SBC3 budget.
- EEPS1 electric programs are expected to achieve 82% of the goals with 92% of the budget expended; EEPS natural gas programs are expected to achieve 66% of the goal with 74% of the budget.

Renewable and Diverse Energy Supplies

- In 2011, over 2,276 GWh of energy was generated from renewable resources as a result of NYSERDA investments in renewable energy programs.
- All corporate renewable energy 2011 targets were achieved.
- As reported in the 2011 RPS annual report, 39% of the budget is committed and is projected to deliver 48% of the 2015 goal.
- Customer-sited RPS is on track to achieve its 2015 goal, but the main tier will need to accelerate.

Clean Energy Economy

- In 2011, NYSERDA assisted 188 clean energy businesses leveraging NYSERDA's \$36 million with an additional \$158 million (>4:1).
- 216 products yielding \$1.5 billion in sales have entered the market as a result of NYSERDA's technology development investments.
- Over 28,000 workers have been trained in clean energy technologies.
- 100,000 to 200,000 workers are employed in New York's clean energy economy.
- Five out of seven corporate 2011 clean energy economy targets for 2011 were achieved.

A Cleaner Environment

- As of December 2011, NYSERDA's energy efficiency and renewable energy programs reduced annual emissions of:
 - NOx by 3,660 tons, (~11% of grid emissions)
 - SO2 by 7,017 tons, and (~13% of grid emissions)
 - CO2 by 3,802,612 tons (~9% of grid emissions)
- The CO2 reduction is equivalent to removing over 750,000 cars from the road.
- All corporate 2011 environmental targets were achieved.

NYSERDA Contracting Performance

- 55% of the almost 6,500 contracts entered into by NYSERDA during calendar year 2011 were processed within the scheduled time period established for 2011.

- NYSERDA processed more than 63,000 vouchers during 2011, paying 99.99% of them on time.

Kevin Burke stated that some biomass sources, e.g., burning wood chips, may emit higher levels of air pollutants than natural gas fired plants, which are becoming more efficient. He added that if the only metric being measured is the amount of gigawatt hours, this may result in increased emissions. He suggested that NYSERDA take environmental impacts into account when deciding which energy sources to fund. Mr. Murray stated that the PSC is responsible for defining what technologies are eligible for RPS funding, and the public is given an opportunity to comment before the PSC makes final eligibility determinations. He added that NYSERDA has been quite active on the R&D side in testing new biomass technologies, generally working closely with DEC staff. Mr. Burke suggested that NYSERDA filings with the PSC regarding funding under the RPS program should reflect what Authority staff have learned with respect to environment impacts of various energy sources. He also stated that based on the discussion at its April 12, 2012 meeting, the PPC believes that the Authority has made major strides in developing metrics.

Mr. Murray stated that the next agenda item was for the Members to consider a resolution approving modifications to the Authority's Internal Control Manual with respect to the Authority's Whistleblower Policy. He asked David Elliman, Chair of the Governance Committee, to discuss the proposed resolution.

Mr. Elliman stated that the proposed amendments add a new Whistleblower Policy to the Internal Control Manual and remove references to the Authority's current procedures for reporting fraud. In addition, the Authority's Code of Conduct, which is attached to the Internal Control Manual, will be amended to incorporate references to the Whistleblower Policy. He advised that the Governance Committee unanimously recommended approval of the resolution.

In response to a question from Mr. Burke, Mr. Brodie stated that NYSERDA's Whistleblower Policy closely tracks the model Policy prepared by the Authorities Budget Office. Mr. Burke also suggested that the policy make explicit that employees will not suffer adverse

personnel actions *as a result of filing a whistleblowing complaint*. Mr. Elliman stated that he considered that suggestion a friendly amendment to the resolution.

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

Resolution No. 1325

RESOLVED, that the amendments to the Internal Control Manual, as submitted at this April 16, 2012 meeting and as revised by Members at the meeting, are hereby approved and adopted.

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 Bob 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 2011-12 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. Catell next reported that Mark Mitchell, NYSERDA’s Director of Internal Audit, provided the Committee with a report on three recently completed audits. First, in February 2012, the audit of the Authority’s PV Incentive Program was finalized. The audit evaluated the program’s internal practices and procedures to administer the Authority’s PV energy efficiency measures on the Customer-Sited Tier of the RPS. The program’s design was evaluated by using regression analysis to forecast results. The analysis showed that, if the program remains at its current pace, it should achieve 98% of its megawatt per hour target and 98% of the megawatt target with its current level of funding. Therefore, Mr. Mitchell concluded the design of the program is effective. Generally, the program’s operating controls were found to be adequate, appropriate, and effective to provide reasonable assurance that risks are being managed and objectives should be met. However, a few specific control weaknesses were noted and

recommendations made to correct the weaknesses. The program's management concurred with all of the recommendations.

Mr. Catell reported that the second audit reviewed the Authority's process for managing changes made to its Information Technology ("IT") infrastructure. The audit focused on three key computer applications: the NEIS system, which is the Authority's electronic reporting system; the Buildings Portal database, which captures, analyzes and provides reports about commercial and industrial energy savings projects for the Authority's Energy Efficiency Services programs; and the CRIS database, which captures, analyzes and reports on residential energy savings for NYSERDA's Residential Energy Savings programs. The audit identified varying degrees of evolution and consistency in the design and execution of IT change controls. It concluded that the Authority could benefit from continued efforts to strengthen existing change controls associated with the Authority's NEIS accounting system. It also concluded that the Authority could benefit from simultaneously designing and implementing baseline IT change controls in the two other applications and computing environments evaluated that support operations: the Buildings Portal database and the CRIS database.

The audit commended the Authority and the IT organization for recognizing the importance of establishing IT change controls. It found clear evidence of the Authority's commitment to implementing and improving change controls using automation, manual procedures and dedicated resources. The audit made a few recommendations to improve the IT change controls and management concurred with all of the recommendations contained in the report.

Lastly, Mr. Mitchell reported that an audit of the internal controls associated with the Authority's Green Jobs-Green New York ("GJGNY") financing product was completed recently. The program is administered by two external contractors, Energy Finance Solutions ("EFS") and Concord Servicing Corporation ("CSC"). The audit evaluated the effectiveness of their controls by obtaining and auditing a sample of records maintained by them. The audit concluded that the effectiveness of the program's internal control activities is adequate. This conclusion is not only applicable to NYSERDA's management and staff oversight activities but also to the controls in

place at EFS and CSC. Additionally, the audit did not find any exceptions to the program's business processes.

Mr. Murray stated that the next agenda item pertained to matters addressed by the Waste & Facilities Management Committee ('W&FMC') earlier that day, and he asked Committee Chair Dr. Elizabeth Thorndike to report on discussions at the W&FMC meeting. The Committee received a status report from Director Paul Bembia on West Valley Site Management Program activities. Mr. Bembia addressed several issues, including (1) erosion mitigation activities being undertaken at the site; (2) removal of the Main Plant Process Building and transferring the High-Level Waste canisters to a new on-site storage facility; (3) the proposed federal budget for West Valley; (4) the status of Phase 1 studies; and (5) possible reuse of portions of the site.

First, Mr. Bembia reported on erosion mitigation activities near the State Licensed Disposal Area. Erosion control structures that were installed in 2009 and the additional control structures that were installed last year are functioning very well. The control designs are prepared by an engineering firm, and NYSERDA submits the designs to an independent peer review group for evaluation. The peer reviewers recommended that staff incorporate a series of natural features to dissipate stream energy (which reduces erosion). Those features were incorporated into the design that was installed last year and will also be used in the additional erosion mitigation work that will be conducted this year and in 2013.

In regard to West Valley Demonstration Project activities, the federal DOE is planning for one of the most significant removal activities ever undertaken at the site – the removal of the Main Plant Process Building. The Main Plant Process Building is a highly contaminated building where the spent nuclear fuel was dissolved and uranium and plutonium recovery occurred in the 1960s and 1970s. It is presently the storage location for the 275 canisters of vitrified High-Level Radioactive Waste. In order to demolish the Process Building, the High-Level Waste canisters must be removed from the building. Since there is no disposal facility for High-Level Waste and DOE's current policy is to store High-Level Waste at the point of generation until it is disposed at a geologic repository, DOE has decided to construct an interim High-Level Waste storage facility at the West Valley site. DOE will use a commercially

available storage system, like those used at nuclear power plants to store spent fuel. It is expected that constructing the facility and moving the canisters will cost about \$50 million. Current plans are to move the canisters to the new storage facility by 2015. The Main Plant Process Building is scheduled to be demolished by 2017.

Mr. Bembia then reported that in February 2012, the President's proposed budget for Federal Fiscal Year 2013 was released. In that proposed budget, the site would receive only \$50 million for 2013. This continues a trend of decreasing funding for the West Valley Demonstration Project. In 2012, the President proposed \$60 million for West Valley. This was increased to \$66.6 million through the efforts of Congressmen Tom Reed and Brian Higgins. If the site is funded at \$50 million, it will lengthen the duration of the first phase of decommissioning from 10 years to 20 years and add about \$200 million to the total project cost. According to DOE, the decrease in funding is the result of DOE using a "hazard-based" approach for determining funding priorities. Since the West Valley Demonstration Project has successfully completed much of its high-hazard work, such as solidifying the High-Level Waste and removing spent nuclear fuel from the site, the work that is left is a lower priority in terms of DOE funding. Mr. Bembia said that DOE's use of a hazard-based funding approach may make sense in terms of addressing high-risk issues at DOE sites across the country, but decommissioning activities at sites like West Valley will be impacted as funds are diverted to other sites.

Mr. Bembia also reported that NYSERDA and DOE are making progress on scientific studies that are being conducted jointly by NYSERDA and DOE in an effort to try to resolve the technical disagreements that were identified during the preparation of the 2010 Decommissioning Environmental Impact Statement. He reported that a Subject Matter Expert group that is evaluating site erosion studies has been meeting since February and expects to issue recommendations by mid-May. Additionally, NYSERDA and DOE will sponsor a workshop this summer on how to best address the impacts of climate change in West Valley's long-term performance assessments and dose calculations.

Finally, Mr. Bembia reported that community leaders have been discussing some ideas for putting site resources and property back into productive reuse. Previous discussions have focused on the Asset Revitalization Initiative, a federal program where Congress directed DOE to examine ways to work with local communities to support the reuse of DOE resources at former Cold War weapons sites around the country. Because the direction of the Asset Revitalization program is still up in the air, and because West Valley may not be eligible to participate because it is not a defense site, community leaders are taking a broader view of options and are developing concepts to reuse Center property while it remains under its Nuclear Regulatory Commission (“NRC”) license and NYSERDA ownership. Staff will work with DOE to evaluate concepts for reusing Center property that come from elected officials and the business community.

Dr. Thorndike then summarized a report that NYSERDA Senior Project Manager Alyse Peterson provided to the Committee on NYSERDA’s nuclear coordination and radioactive waste policy activities. First, Ms. Peterson reported on developments that might lead to acceptance of low-level radioactive waste from New York at a new disposal facility in the State of Texas. She also reported that NYSERDA has entered into a short-term contract with a consultant with expertise on nuclear systems operation and safety. The contract is funded through an American Recovery & Reinvestment Act grant and will run through August 2012. The consultant will be tasked to assist NYSERDA with review of nuclear issues, reports and proposals as they arise. These can include nuclear plant license amendment requests, NRC rulemakings, guidelines and initiatives, industry initiatives, and other items (e.g., post-Fukushima recommendations). The work product will be used to inform energy assurance and energy planning activities. This short-term nuclear engineering contract will be used as a test run to help determine whether NYSERDA wishes to have contracted access to these capabilities on a continuing basis.

Finally, Ms. Peterson reported that preparation of a nuclear report for the State Energy Plan is underway. The report is designed to provide basic information regarding nuclear power plants in New York, their contribution to New York’s energy supply, advances in new reactor design, and issues surrounding the plants such as waste management, decommissioning, and aging management. Notably, the Energy Plan will look at modeling of electric system scenarios

with and without Indian Point. NYSERDA staff is the lead for the nuclear report, but is receiving input from the NYS Departments of Public Service, Health, and Environmental Conservation, the Office of Emergency Management, and the New York Power Authority.

Mr. Murray then asked Cheryl Earley, Director of Contract Management, to discuss the Periodic Procurement Contracts Report. Ms. Earley 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, 2011 through March 15, 2012. The report summarizes 1,129 procurement contracts exceeding \$5,000 that were initiated or modified during the period. Over 95% of the procurement contracts were competitively selected, and 97% 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 1,529 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 \$357 million.

Ms. Earley 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 10 contracts subject to Article 15-A which were initiated or modified during the reporting period, 10% of the total number of contracts were awarded to certified M/WBEs, representing 7% of the total contract amounts.

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 NYSERDA 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; Con Edison Solutions and Consolidated Edison Company, identified by Kevin Burke; various SUNY campuses and

affiliates, identified by Bob Catell; Cornell University and the University of Rochester, identified by Liz Thorndike; and New York University, identified by Mark Willis.

Kevin Burke raised an issue regarding a biomass contract with ReEnergy and suggested that in reviewing it, NYSERDA take into consideration air emissions impacts.

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, and Mr. Willis each abstained from the vote solely with regard to contracts involving the respective entities identified by each of them above.

Resolution No. 1326

RESOLVED, that the Periodic Procurement Contracts Report, covering the period December 16, 2011 through March 15, 2012, 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. Willis requested that staff explain to the Members the “best efforts” the Authority makes with regard to contracting with MWBEs. Hal Brodie stated that at the June board meeting, during which Ms. Earley would provide NYSERDA’s Annual Procurement Contracts Report, she would address the MWBE goals established by NYSERDA as well as the steps being taken to achieve those goals. Mr. Murray added that establishment and achievement of MWBE goals is a very high priority of the Governor.

Mr. Murray stated that the next agenda item was a report from Senior Project Manager Chris Reohr on an energy efficiency project at the Global Foundries facility in Malta, New York. Mr. Murray stated that the report would provide the Board with a concrete example of the kinds of projects the Authority’s Energy Efficiency Services Program oversees.

Mr. Reohr’s report was entitled “Leveraging NYSERDA Resources to Develop the World’s Greenest Fab.” He first explained that GLOBALFOUNDRIES (GF) is a Global

Semiconductor Chip Manufacturer with 12,000 employees in three continents. GF started in the 1960s in the United States and is now a \$300 billion+ global business. The chip business is a very energy intensive production process, typically constituting 25% of operating budget. Consequently, GF is committed to invest in energy efficiency and sustainability measures. GF first contacted NYSERDA in 2008, seeking technical assistance regarding energy efficiency measures. GF is investing approximately \$5.3 billion in its Malta facility (Fab 8). It is the largest commercial capital construction project in the Northeast and one of the largest in the U.S. The project has resulted in 6,500 new jobs in Saratoga County, including 3,000 GF employees, and an additional 1,500 temporary jobs during construction of the facility.

Mr. Reohr reported that GF's clean room environment for fabricating chips must be 10,000 times cleaner than a hospital operating room. A few other statistics:

- GF's energy use is the equivalent of 23,898 homes (half the number of homes in the City of Albany)
- GF can potentially save up to \$10 million per year in energy costs
- GF energy savings (approx. 16 GWh) constitute about 5% of NYSERDA's energy savings target in the EEPS program
- Recycling and other measures have enabled GF to achieve a 40% savings in water usage
- GF is the world's first Leadership in Energy and Environmental Design (LEED) certified chip plant and the largest single LEED project in the world.

Mr. Reohr concluded by stating that various lessons learned by NYSERDA staff will prove invaluable as the Authority deals with future chip fab plants in New York state.

Mr. Murray then asked if there was any further business. 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 16, 2012

REVISED NOTICE OF MEETING AND AGENDA

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

PLEASE TAKE NOTICE that a regular (the 213th) meeting of the New York State Energy Research and Development Authority (“Authority”) will be held in the Authority’s New York City Office at 485 Seventh Avenue, 10th floor, New York, New York, and 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, on Monday, April 16, 2012, commencing at 12:30 p.m., for the following purposes:

1. To consider and act upon a resolution commending Robert S. Callender for his many years of service to the Authority.
2. With respect to matters considered by the Program Planning Committee:
 - (a) to consider and act upon a resolution approving revisions to the Regional Greenhouse Gas Initiative (RGGI) Operating Plan;
 - (b) to receive a report on program evaluation and metrics.
3. With respect to matters considered by the Governance Committee:
 - (a) to consider and act upon a resolution approving modifications to the Authority’s Internal Control Manual with respect to the Authority’s Whistleblower Policy.
4. 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 2011-12;
 - (b) to receive a report on the recent activities of the Director of Internal Audit;
 - (c) to receive a report on the Green Jobs-Green New York program.
5. To receive a report from the Waste and Facilities Management 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
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Francis J. Murray, Jr., President and CEO

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**West Valley Site
Management Program**
9030-B Route 219
West Valley, NY
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6. To consider and act upon a resolution approving a periodic procurement contracts report.
7. To receive a report on an energy efficiency project at the Global Foundries facility in Malta, New York.
8. 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

April 3, 2012

NOTICE OF MEETING AND AGENDA

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

PLEASE TAKE NOTICE that a regular (the 213th) meeting of the New York State Energy Research and Development Authority (“Authority”) will be held in the Authority’s New York City Office at 485 Seventh Avenue, 10th floor, New York, New York, and 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, on Monday, April 16, 2012, commencing at 12:30 p.m., for the following purposes:

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New York State Energy Research and Development Authority

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