

STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION

At a session of the Public Service  
Commission held in the City of  
Albany on August 20, 2009

COMMISSIONERS PRESENT:

Garry A. Brown, Chairman  
Patricia L. Acampora  
Maureen F. Harris  
James L. Larocca, recused

CASE 08-E-1133 - Petition of Niagara Mohawk Power Corporation for Approval of Energy Efficiency Portfolio Standard (EEPS) Utility Administered Electric Energy Efficiency Program.

CASE 08-E-1132 - Petition of New York State Energy Research and Development Authority (NYSERDA) for Approval of an Energy Efficiency Portfolio Standard (EEPS) NYSERDA-Administered Electric Energy Efficiency Program.

CASE 09-G-0363 - Petitions for Approval of Energy Efficiency Portfolio Standard (EEPS) Gas Energy Efficiency Programs.

CASE 07-M-0548 - Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard.

ORDER APPROVING CERTAIN LARGE INDUSTRIAL CUSTOMER  
ENERGY EFFICIENCY PROGRAMS WITH MODIFICATIONS  
AND REJECTING OTHERS

(Issued and Effective August 24, 2009)

BY THE COMMISSION:

INTRODUCTION

In this order, the Commission approves, with modifications, selected Energy Efficiency Portfolio Standard (EEPS) electric and natural gas energy efficiency programs designed to serve the large industrial customer market segment,

and rejects certain other programs. The approved programs include the Energy Initiative Program (electric) to be administered by Niagara Mohawk Power Corporation d/b/a National Grid (Niagara Mohawk) and the Industrial and Process Efficiency Program (gas) to be administered by the New York State Energy Research and Development Authority (NYSERDA). The programs rejected are the Waste Energy Recovery Programs (electric & gas) proposed by NYSERDA.

#### BACKGROUND

On June 23, 2008, the Commission created an Energy Efficiency Portfolio Standard (EEPS) program for New York State to develop and encourage cost-effective energy efficiency programs.<sup>1</sup> The Commission initially invited NYSERDA and the six large investor-owned electric utilities to submit electric energy efficiency program proposals. Subsequently, the Commission invited NYSERDA and natural gas utilities with 14,000 or more customers to submit natural gas energy efficiency program proposals. Numerous program proposals were submitted in response to the Commission's invitation. Many of the proposals are in the form of combined electric and gas proposals. To provide for an orderly review of the proposals, they are being considered in phases, divided by customer market segments. This order is focused on program proposals designed for the large industrial customer market segment.

#### NOTICE OF PROPOSED RULEMAKING

A Notice of Proposed Rulemaking concerning the energy efficiency program proposals under consideration was published in the State Register on May 20, 2009 [SAPA 09-G-0363SP2]. The

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<sup>1</sup> Case 07-M-0548, Energy Efficiency Portfolio Standard (EEPS), Order Establishing Energy Efficiency Portfolio Standard and Approving Programs (issued June 23, 2008).

minimum period for the receipt of public comments pursuant to SAPA regarding that notice expired on July 6, 2009. The comments received are summarized below.

NOTICES SOLICITING COMMENTS

On April 21, 2009, the Secretary issued a document entitled "Notice Soliciting Comments and Supplementing Notice of Technical Conferences" that, among other things, invited interested parties to comment on the energy efficiency program proposals under consideration here. The April 21, 2009 Notice established a deadline of May 26, 2009 for initial comments and June 5, 2009 for reply comments. The comments received on large industrial programs are summarized here.

SUMMARY OF PROGRAM PROPOSALS

Brief summaries of the proposed programs considered in this order are presented below. More detailed descriptions of the programs are provided in Appendix 1.

Niagara Mohawk - Energy Initiative Program (Electric)

Niagara Mohawk's proposed electric Energy Initiative Program is designed to provide large industrial customers (with a load of 2 megawatts or greater) with financial and technical assistance to replace inefficient energy-using equipment and systems. The company proposes a cumulative program budget of \$16.4 million through 2011. The company proposes to offer prescriptive and custom incentives to promote efficiency improvements. The custom incentives would be the lesser of either 50 percent of the installed costs or a buy-down of equipment costs equivalent to a one-year payback or less. Prescriptive measures offered would include lighting systems,

lighting controls, energy management systems and economizer controls, air compressors, and variable frequency drives.

NYSERDA Industrial and Process Efficiency Program (Gas)

NYSERDA's proposed Industrial and Process Efficiency Program was designed to serve all industrial gas customers, with emphasis on large gas customers with electric demand of 2 MW or more. NYSERDA proposed a gas energy savings goal of 2,302,000 MMBtu. Requested gas funding of \$23.8 million, including \$560,000 in marketing costs, would be combined with previously-approved electric funding for NYSERDA's Flex Tech Industrial Process program<sup>2</sup> so that gas efficiency efforts could be integrated with electric efficiency efforts through a "one-stop" program. Also, approximately a third of the program budget was allocated to a complementary bidding component.<sup>3</sup>

The proposed program would focus on key manufacturing sectors in New York such as: chemicals and pharmaceuticals, printing and publishing, automotive, food processing, and forest products. Data centers were also included since their energy use profile is similar to manufacturing. In addition, agriculture, mining, extraction, and water and wastewater facilities would be targeted because they have similar process-oriented missions and expectations, according to NYSERDA. Incentives would be offered for both electric and gas energy efficiency projects in all of these sectors to reduce the energy used per unit of production.

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<sup>2</sup> Case 07-M-0548, supra, Order Establishing Energy Efficiency Portfolio Standard and Approving Programs.

<sup>3</sup> NYSERDA proposed to integrate \$8 million of natural gas funding into the bidding solicitation (of the \$23.8 million requested in this proposal) to achieve a minimum of 730,000 MMBtu of savings (of the total proposed program savings of 2,302,000 MMBtu).

NYSERDA Waste Energy Recovery Program (Electric & Gas)

NYSERDA's proposed Waste Energy Recovery Program is designed to achieve savings of electric energy (MWh) and natural gas (MMBtu), and reduction of electric grid peak load (MW). NYSERDA proposed an overall combined gas and electric program budget through 2011 of \$5.75 million, with approximate annual budgets of \$2.3 million (one-half from electric funds, one-half from natural gas funds). The program would provide about \$2 million of incentives to industrial customers annually. Individual projects would be eligible to receive up to \$500,000 or 50% of the overall cost of the project, whichever is less.

Each program year, the program would install four waste heat recovery systems. NYSERDA states that participants would be chosen so as to maximize the learning opportunity through technology demonstration. NYSERDA also asserts that use of a traditional Total Resource Cost (TRC) test is not appropriate in the near term because this program would address technology demonstration at the pre-deployment stage and that it is intended to gain market intelligence and advance market penetration of the technology. NYSERDA explains that the purpose of an early demonstration research and development program is to assess a technology and its potential.

DISPOSITION OF PROGRAM PROPOSALS

Comments on the programs were received from Multiple Intervenors (MI), the Center for Economic Growth (CEG), the Economic Development Corporation of Warren County (EDC) and the Capital Region Building Owners and Managers Association (BOMA). These comments are summarized below.

Multiple Intervenors

The majority of comments from Multiple Intervenors (MI) do not address specific energy efficiency program proposals. Its general comments have been addressed previously in our June 24, 2009 Order in Cases 08-E-1132, et al., dealing with selected energy efficiency programs for multifamily buildings.

MI generally does not support the proposed energy efficiency programs for large industrial customers and sets forth several general recommendations regarding the design of electric energy efficiency programs for large commercial and industrial (C&I) customers. MI advocates that customer-funded efficiency programs targeted at large C&I customers should be extremely flexible and that large customers should be allowed individually to "bank" all EEPS-related surcharges that they pay for application to their own energy efficiency improvements. MI believes that competitive bidding is worth further investigation and recommends that the Commission approve the bidding programs that were proposed in concept and direct all the utilities to establish competitive block bidding programs.

Center for Economic Growth

The Center for Economic Growth (CEG), a private not-for-profit economic development organization, submitted comments in support of the Niagara Mohawk Energy Initiative Program. CEG states that upstate New York businesses deserve a program that is comparable in breadth and depth to the services that National Grid offers to businesses in New England. CEG asks the Commission to approve the full Energy Initiative Program, saying that slicing the program into small wedges would create inefficiencies and would be confusing for customers.

Economic Development Corporation of Warren County

The Economic Development Corporation of Warren County (EDC) also submitted comments in support of Niagara Mohawk's full Energy Initiative Program. EDC states it believes that Niagara Mohawk's program would be a vital step in assisting existing companies and would be a comprehensive means for reducing overall energy usage. EDC urges the Commission to approve Niagara Mohawk's Energy Initiative Program.

Capital Region Building Owners and Managers Association

The Capital Region Building Owners and Managers Association (BOMA) also submitted comments in support of Niagara Mohawk's energy efficiency program designed to assist large industrial customers in New York. BOMA states that even though business customers have been funding energy efficiency efforts in the state, business customers have not been able to fully take advantage of NYSERDA's business energy efficiency programs. Further, BOMA states that its membership looks forward to their local utility company providing much needed energy efficiency services. In addition, BOMA notes that Niagara Mohawk account executives will be able to work with its businesses customers to identify and implement energy efficiency investments that will help businesses to manage energy costs and increase productivity. BOMA urges the Commission to approve Niagara Mohawk's Energy Initiative Program.

Discussion

1. Funding Principles

As we have stated previously,<sup>4</sup> as a general principle for all EEPS programs, monies collected from electric ratepayers

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<sup>4</sup> Case 08-E-1127, et al., Consolidated Edison Company of New York, Inc. - Energy Efficiency, Order Approving Multifamily Energy Efficiency Programs with Modifications (issued July 24, 2009).

should be used to fund only electric energy efficiency measures and monies collected from gas ratepayers should be used to fund only gas efficiency measures. Heating efficiency measures in buildings heated by a fuel source other than natural gas or electricity should not be funded by EEPS resources. Measures that are not cost effective on a stand-alone basis, and measures that do not contribute directly to achieving the Commission's electricity or gas usage reduction targets (except extremely low cost and incidental measures like low-flow water restrictors), should not be funded by EEPS resources. Each type of measure to be installed must be cost effective on a stand-alone basis such that the type of measure has a total resource cost (TRC) value of at least one prior to inclusion of program administrative and evaluation, measurement, and verification costs. Further, program administrators should determine that each project as a whole will be cost effective after inclusion of all program administrative and evaluation, measurement, and verification costs.<sup>5</sup> The determination of total resource benefits must be based on avoided costs, carbon reduction per unit values, and all other inputs and assumptions in effect at the time benefit/cost analyses are performed.

2. Benefit/Cost Analysis

a. Niagara Mohawk Energy  
Initiative Program (Electric)

Niagara Mohawk estimates a benefit/cost TRC ratio of 1.89 for the proposed program as a whole, including administrative and evaluation costs, shareholder performance incentives, the CO<sub>2</sub> adder, and the Technical Manual free rider default estimate (using Staff's free rider costs methodology). The program covers four categories of measures: Compressed Air,

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<sup>5</sup> Utility program administrators must also include estimated shareholder performance incentive amounts for evaluating the cost-effectiveness of projects.



Custom, Lighting, and Variable Speed Drives (VSD). Staff initially utilized aggregate measure category level data reflecting the company's Massachusetts experience to perform a measure category level TRC analysis. The resultant TRC ratios, reflecting a CO<sub>2</sub> adder but not the program costs reflected in the Niagara Mohawk analysis, are reported in the following table:

<u>Measure Type</u>	<u>TRC Ratio with CO<sub>2</sub></u>
Compressed Air	1.18
Custom	1.79
Lighting	4.85
Variable Speed Drives	3.40

In response to a Staff information request, Niagara Mohawk subsequently provided details on 66 specific projects, with measure detail, funded under its Energy Initiative Program in Massachusetts. Included in the New England program as Custom measures are four projects related to operations and maintenance (O&M) and eleven related to industrial process modifications. The O&M projects resulted in an average TRC of 6.65 while the industrial processes projects averaged 1.21.

The averages for measure categories reflect cost and savings data for various installations whose cost-effectiveness is highly site, and actual measure, specific. Therefore, the program's implementation protocol should include a TRC prescreening analysis both at the specific measure and project level before project funding commitments are made. We believe such a requirement should ensure a cost effective investment on behalf of ratepayers and would not be overly burdensome for large custom projects requiring engineering study.

b. NYSERDA Industrial and Process Efficiency Program (gas)

The customized-project nature of this program, where energy efficiency improvements are made to production lines and manufacturing processes which often have unique characteristics and functions, makes it extremely difficult to make a generalized prediction of the benefits/cost at the measure or program level. Consequently, NYSERDA has not provided sufficient data for such a generalized benefit/cost analysis. NYSERDA's analysis relies largely on an estimated relationship between incentive payments and the amount of conserved energy that can be acquired in this sector instead of on measure costs. However, because the cost-effectiveness of the large and custom projects to be funded by the proposed program is highly site, and actual measure, specific, a TRC analysis at the measure and project level prior to project approval is essential in any case, and would not be overly burdensome as part the projects' engineering studies.

3. Customer Outreach and Education/Marketing

Consistent with prior orders, and as part of the utility program implementation plans and NYSERDA operating plan for the large industrial customer energy efficiency programs, each of the program administrators will submit program-specific marketing plans for certification by the Director of the Office of Consumer Services.

4. Approved Programs

The total amount of funding we shall approve at this time for the large industrial customer market sector reflects in part our calculation of the proportional share of the expected cost of EEPS electric and gas programs divided pro rata by customer market sector, and the need to retain a portion of the total allocation for industrial customer programs for programs that will be considered later. The funding of gas programs

further reflects the fact that some of the gas programs will replace existing interim energy efficiency programs.

a. Niagara Mohawk Energy  
Initiative Program (Electric)

Niagara Mohawk requested \$6,578,312 in funding on an annualized basis, and we are approving that amount annually for both 2010 and 2011. This funding amount approved for the electric program represents the full amount requested by Niagara Mohawk to serve industrial customers with an electric load of 2 MW or greater. The balance of the broader Energy Initiative Program, designed to serve all non-residential customers with loads greater than 100kW, will be addressed by the Commission in the future.

In addition, as part of Niagara Mohawk's broader Energy Initiative program, the company proposes complementary energy initiative services that focus on demand response, power quality, power factor correction, and combined heat and power and renewable energy opportunities. The proposed complementary services are not approved at this time, and will be addressed by the Commission in the future as part of the company's broader Energy Initiative Program.

b. NYSERDA Industrial and  
Process Efficiency Program (gas)

NYSERDA requested \$11,900,000 in funding on an annualized basis, and we are approving \$5,615,267 annually for both 2010 and 2011. This funding amount approved for the gas program represents a proportional share, in relation to the total amount of funding requests received, of the base amount of incremental gas funding we determined should be available to the large commercial and industrial customer segment (\$6,400,000).

The approved program assumes eligibility of all commercial and industrial gas customers, which is beyond the initial requested focus on the largest commercial and industrial

customers. We acknowledge that the program serves as a complement to NYSERDA's recently-approved electric-funded Industrial and Process Efficiency Program.<sup>6</sup> We will require, however, that the large commercial and industrial gas customers be the priority target group, and that this priority is reflected in NYSERDA's operating plan.

NYSERDA also requested approval to include a bidding component as part of its program offering. It specifically requested to:

- Develop and issue a bidding solicitation for large industrial customers, using \$20 million (of the \$93 million previously-approved Industrial and Process Efficiency electric funding) to achieve a minimum of 187,000 MWh of savings (of the total 840,000 MWh goal)
- Integrate \$8 million of natural gas funding into the bidding solicitation (of the \$24.4 million requested) to achieve a minimum of 730,000 MMBtu of savings (of the total 2,302,000 MMBtu proposed).

NYSERDA proposed allocating approximately 33% of the program's total electric and gas budgets and goals for 2010 and 2011 to the bidding component. The bidding component is not a critical element of the program and we shall defer consideration of the bidding option at this time. It is our intention to address the issue of bidding programs in a more general manner in the future. The funding that is approved here for the program is to be used only for end-use energy savings equipment.

#### 5. Rejected Programs

We are not approving incremental funding of NYSERDA's Waste Energy Recovery Program with EEPS funds at this time. Although we believe that there are electric and gas energy

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<sup>6</sup> The electric funding for the Industrial and Process Efficiency Program was provided pursuant to NYSERDA's System Benefits Charge Supplemental Revision for the New York Energy SmartSM Programs (2008-2011) [as Amended August 22, 2008, and Revised on March 12, 2009].

savings opportunities with a properly designed waste energy recovery program, we find the program as proposed by NYSERDA to be problematic for several reasons. Numerous aspects of the proposed program are of a research and development nature, as evidenced by NYSERDA's statements in its proposal. We prefer to dedicate EEPS funds to programs able to contribute more directly toward the energy savings goals and targets we have established. Moreover, NYSERDA's assertion that use of a traditional TRC test is not appropriate for this program does not allow it to be measured by the same metrics as other program submissions that are competing for EEPS funding and makes it difficult for us to determine whether any funding would be used in a cost-effective manner. In addition, some elements of the program, such as the installation of equipment for recovery of the higher temperature waste heat, overlap with other existing NYSERDA programs. NYSERDA states that the proposed program complements its existing Industrial Process and Product Innovation Program, Existing Facilities Program, and Statewide Combined Heat and Power Programs. NYSERDA further explains that these existing programs support certain aspects of waste energy recovery technologies, such as efficient heat exchanges in industrial settings, steam backpressure turbines, organic Rankin cycle systems, etc. As a result, there is uncertainty and vagueness regarding the utilization of other program funds and the layering of incentives from those other existing programs. Consequently, we do not believe at this time that the program as proposed would make appropriate use of EEPS funds.

However, we recognize the importance of reducing energy waste through the recapture of heat from high temperature waste streams that can be redirected to end use applications such as space and water heating, as well as for process heat and steam. We therefore encourage NYSERDA to be vigilant in

pursuing opportunities to recapture such waste under existing programs with existing technologies.

6. Policy Guidelines Regarding Customized Incentives

Large industrial customers often require customized energy efficiency programs to best meet their individual needs. As a result, programs offered by NYSERDA and the utilities include customized incentive payments that may be a percentage of the overall cost of a particular project. However, we must ensure the appropriate expenditure of ratepayer dollars. Therefore, we will require that proper documentation be obtained (i.e., itemized invoices depicting the installation costs of the energy efficiency measures) by NYSERDA or the utilities before any energy efficiency incentives are paid that are based on a total overall cost of a project. Program administrators should ensure that EEPS program funding is used only for costs associated with end-use energy savings equipment.

7. Program Evaluation

a. Niagara Mohawk Energy  
Initiative Program (Electric)

Niagara Mohawk has included with its proposed Energy Initiative Program a plan to evaluate the program that covers key topics, including process and impact evaluation, evaluation budget, sampling strategy, steps to mitigate threats to data reliability, and the data collection process. The evaluation plan generally comports with the evaluation guidelines that we had requested be developed by Staff and the Evaluation Advisory Group in our June 2008 EEPS Order.

While the proposed evaluation plan is adequate as a first step, a more detailed evaluation plan is necessary to more fully explain the evaluation approach, standards, and budget. For example, Niagara Mohawk has established an evaluation budget of 5 percent of the program funding, but notes the actual budget could be higher or lower. Relative to sampling strategies, the

Company agrees to statistical reliability goals consistent with Staff evaluation guidelines, but does not provide information about the sampling protocols and cautions that "actual evaluation results may deviate from this standard." This vagueness does not allow Staff to fully assess the evaluation plan. In addition to the lack of detail, a notable shortcoming of the proposed evaluation plan is an inadequate discussion of how Staff and the Evaluation Advisory Group will be engaged in order to effectively execute oversight responsibilities. The evaluation plan should also include an option for Staff to review all the key components of the evaluation process, including customer surveys, statistical approaches, modeling techniques, and draft reports.

b. NYSERDA Industrial and Process Efficiency Program (gas)

NYSERDA's evaluation plan offers a general overview of the steps it proposes to use to evaluate the Industrial and Process Efficiency Program (gas) including conducting impact, process, and market evaluations over a 5 year period (2009-2013). The evaluation design is similar to the approach proposed by NYSERDA for its electricity-focused "Fast Track" Industrial and Process Efficiency Program and offers the potential for coordination between the two evaluation efforts. NYSERDA cautioned that its evaluation plan was designed without knowing certain critical factors such as the final disposition of the program design by the Commission and the impact of the periodic refinements to Staff's evaluation guidelines. As a result, it described the evaluation plan as "scalable and flexible."

Staff is currently in the process of working with NYSERDA on certifying several detailed evaluation plans related to both EEPS and SBC III programs. Some plans have been certified, but others are still being revised by NYSERDA

including the plan for the Industrial and Process Efficiency Program (electric). A major modification to all the recent NYSERDA evaluation plans is to revise the statistical and sampling designs so that key evaluation results comport with Staff's recommended statistical standards for reporting program outcomes at both the statewide and regional levels (upstate and downstate regions). This more rigorous approach will generally require larger samples, but will offer increased information relative to the performance of NYSERDA programs and increase our confidence in the accuracy of the data. The revised evaluation plans include a more defined role for Staff oversight over NYSERDA evaluation activities than was articulated in the proposed plan originally submitted by NYSERDA, as well as other technical refinements (e.g., clearer documentation of the energy savings and productivity benefits attributable to program measures) that should result in more reliable and cost-effective evaluation. These are positive developments that should be continued as part of the evaluation plan for the Industrial and Process Efficiency Program.

c. Technical Manual

Staff has issued to interested parties for comment a draft of an update to the Technical Manual which covers the energy savings calculation procedures for commercial and industrial energy efficiency measures. To allow parties additional time to comment on the latest draft manual update, we will not be considering at this time an update to the manual which covers the energy savings calculations procedures for the energy efficiency programs we are approving today. We will consider in the near future an update to the Technical Manual which does cover these programs after the party comments have been received and analyzed.



8. Collections

Any change to System Benefits Charge (SBC) or other energy efficiency surcharge collection amounts or rates indicated by the budgets approved in this order will be considered by the Commission in the near future when it considers a broader range of energy efficiency issues or programs for electric and gas customers. At this time it appears that the current rate of collections by all utilities will exceed their expense commitments through the end of Calendar Year 2009.

SEQRA FINDINGS

Pursuant to our responsibilities under the State Environmental Quality Review Act (SEQRA), in conjunction with this order we find that programs approved here are within the overall action previously examined by us in Case 07-M-0548 and will not result in any different environmental impact than that previously examined. In addition, the SEQRA findings of the June 23, 2008 Order in Case 07-M-0548 are incorporated herein by reference and we certify that: (1) the requirements of SEQRA, as implemented by 6 NYCRR part 617, have been met; and (2) consistent with social, economic, and other essential considerations from among the reasonable alternatives available, the action being undertaken is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable.

CONCLUSION

For the reasons given in the discussion above, the Commission approves, with modifications, electric and gas energy efficiency programs designed to serve the large industrial customer market sector to be administered by Niagara Mohawk and NYSERDA.

The Commission orders:

1. System Benefits Charge (SBC) funding for Energy Efficiency Portfolio Standard (EEPS) programs to be administered by Niagara Mohawk Power Corporation d/b/a National Grid (Niagara Mohawk) and the New York State Research and Development Authority (NYSERDA) is approved by program as set forth in Tables 1 and 2 of Appendix 2 of this order. The annual program budgets, evaluation budgets, and energy savings goals for the programs shall be as set forth in Tables 1 and 2 of Appendix 2 of this order. Funding may not be reallocated among programs without further approval by the Commission. For NYSERDA, this treatment is dissimilar to that afforded existing non-EEPS SBC programs where NYSERDA may reallocate funding between programs within program categories.

2. NYSERDA shall within 60 days of the issuance of this order, submit a supplemental revision to the SBC Operating Plan incorporating its approved EEPS program that reflects this order and Staff Guidelines for preparing the supplemental revision of the SBC Operating plan that are to be provided by the Director of the Office of Energy Efficiency and the Environment within 15 days of the issuance of this order. The program, including measures, quality assurance, marketing, administration, and evaluation plan, should be described and implemented in a manner that is consistent with the discussion in this order. In addition to other requirements, the evaluation plan shall address achieving the statistical standards for reporting key results at both the Statewide and regional levels (upstate and downstate regions) and a more defined role for Staff oversight and participation in technical refinements. The types of measures and the level of particular financial inducements/incentives/rebates shall not be changed by

NYSERDA except in consultation with Staff; any disagreements shall be brought to the Commission for resolution.

3. Niagara Mohawk shall, within 60 days of the issuance of this order, submit an Implementation Plan for its approved EEPS program that reflects this order and Staff Guidelines for preparing the implementation plan that are to be provided by the Director of the Office of Energy Efficiency and the Environment within 15 days of the issuance of this order. The program, including measures, quality assurance, marketing, administration, and evaluation plan, should be described and implemented in a manner that is consistent with the discussion in this order. The types of measures and the level of particular financial inducements/incentives/rebates shall not be changed by NYSERDA except in consultation with Staff; any disagreements shall be brought to the Commission for resolution.

4. NYSERDA and Niagara Mohawk shall each incorporate reports on these programs into the periodic quarterly program and evaluation reports, annual program reports and evaluations, and monthly scorecard reports already required for the other EEPS programs they administer. NYSERDA and Niagara Mohawk shall track their expenditures on evaluation-related market research in such a manner that they may be reported and scrutinized in the future. Within sixty days of the issuance of this order, the Director of the Office of Energy Efficiency and Environment will provide to these entities guidance on any specific periodic reporting requirements applicable to these specific programs.

5. In the supplemental revision to the SBC Operating Plan, and in the implementation plan, NYSERDA and Niagara Mohawk are directed to also include the following information related to their outreach and education (O&E)/marketing programs and, if necessary, to submit new budgets:

- (a) specific budget amounts for each individual element of the O&E/marketing budget for each year of the program;
- (b) a list and description of the O&E/marketing vehicles to be used;
- (c) an explanation of the target audiences for each program component;
- (d) a timeline for the development, implementation and evaluation of the O&E/marketing efforts;
- (e) how the O&E/Marketing programs relate to the entity's general and other O&E/Marketing programs; and
- (f) the efforts that will be undertaken to minimize any overlap and/or customer confusion that may result from O&E/marketing activities in the same or adjacent market areas.

6. Annual reports of each calendar year's O&E/marketing program achievements, as available to date, and updated plans for the upcoming calendar year, shall be submitted each year with the third quarter status report so that they can be reviewed prior to the end of each program year.

7. All O&E/marketing plan components of the compliance filings will be subject to review and certification by the Director of the Office of Consumer Services that they conform to the requirements of this order, before they shall be implemented.

8. The gas utilities shall establish by contract with NYSERDA, a schedule of payments, no less frequently than quarterly commencing January 1, 2010, to transfer SBC funds to NYSERDA for NYSERDA-administered programs as set forth in Table 3 of Appendix 2 of this order.

9. Shareholder incentives and net lost revenues are not addressed by this order. If Niagara Mohawk has a rate plan that provides for either, it shall consult with Staff and then

propose whatever adjustments are necessary in such provisions, if any, due to changes in circumstances arising from this order.

10. The budgets approved in this order are to be funded by an SBC; they do not represent traditional rate allowances in the sense that any under-spending shall result in the utility drawing down less money from the SBC collections. Efficiencies in that regard are for the benefit of ratepayers, not shareholders. NYSERDA and Niagara Mohawk shall manage the EEPS and SBC funds prudently and within the budgets authorized by the Commission.

11. The Secretary in her sole discretion may extend the deadlines set forth in this order.

12. These proceedings are continued.

By the Commission,

(SIGNED)

JACLYN A. BRILLING  
Secretary

DESCRIPTIONS OF PROPOSED PROGRAMS1. Niagara Mohawk - Energy Initiative Program (Electric)

On September 22, 2008, Niagara Mohawk filed its proposed Energy Initiative program. It filed an update to the electric energy efficiency proposal for the Energy Initiative Program on May 11, 2009, and an update to the gas energy efficiency proposal for the Energy Initiative Program on May 28, 2009.

Niagara Mohawk's September 22, 2008 proposed program addressed energy efficiency by retrofitting mechanical and electrical systems in commercial, industrial, agriculture, governmental, and institutional buildings. The updated Energy Initiative Program proposal addresses industrial customers that have an electric load of 2 MW or greater. This program would provide technical assistance and incentives to existing industrial facilities to encourage installation of energy efficiency measures, and recommend steps that participants could take to improve energy efficiency.

Niagara Mohawk proposes to administer and deliver the program with in-house technical staff, account managers, and outside contractors, as needed. The proposed Energy Initiative program would use both prescriptive and custom measures and incentives.

Niagara Mohawk's proposed electric budget is \$18,672,841 through 2011. Its projected participation level for the electric portion of the program is 162 customers, with a proposed annualized electric savings of 57,325 MWh through 2011.

Niagara Mohawk proposes that the Energy Initiative Program assist customers by providing financial incentives to replace inefficient equipment and overall energy systems. Custom incentives would be 50% of the installed costs or a buy-down of the equipment cost equivalent to a one-year payback or

less, whichever cost is less to the company. Prescriptive electric energy efficiency measures would include lighting systems, lighting controls, energy management systems and economizer controls, air compressors, and variable frequency drives.<sup>1</sup> In addition, the program proposes to offer technical assistance to educate participants in the use of energy efficiency practices.

As part of the May 11, 2009 Energy Initiative Program update, Niagara Mohawk also proposes Complementary Energy Services that focus on demand response, power quality, power factor correction, combined heat and power, and renewable energy opportunities. However, after subsequent conversations with Department Staff, the Company advised Staff that this program was inadvertently included in the Industrial Energy Initiative program description and is not applicable to the proposed program.

Niagara Mohawk proposes to work closely with NYSERDA to ensure effective coordination can take place with the existing services offered to industrial customers through NYSERDA's Flex Tech and Industrial and Process Efficiency programs. The sharing of technical delivery knowledge and information would contribute to rapid adoption of better practices within the State's industrial systems and operations. In addition, Niagara Mohawk would work closely with NYSERDA's new construction programs to help customers incorporate better building and design practices in new construction and major renovations.

Niagara Mohawk proposes that quality assurance measures include pre-inspections and post-inspections and that a Minimum Requirements document be used to determine whether

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<sup>1</sup> Niagara Mohawk provided a list of electric prescriptive measures and incentive levels to Staff on May 14, 2009.

equipment and operation assumptions are implemented as designed. Projects with incentives of less than \$10,000 would be randomly selected for post-inspection; all custom projects would require a post-inspection.

Niagara Mohawk provided a proposed breakdown of the Energy Initiative Program costs for the years 2009 to 2011, shown below:

**Niagara Mohawk Energy Initiative Program  
Proposed Electric Program Costs for the Years 2009- 2011**

	2009	2010	2011	Total
Program Planning and Administration	\$335,821	\$1,672,535	\$1,672,535	\$3,680,891
Program Marketing & Trade Ally	\$53,731	\$133,803	\$133,803	\$321,337
Customer Incentives or Services	\$1,100,000	\$5,100,000	\$5,100,000	\$11,300,000
Program Implementation	\$53,731	\$133,803	\$133,803	\$321,337
Evaluation and Market Research	\$81,199	\$370,507	\$370,507	\$822,214
Total Utility Cost	\$1,624,483	\$7,410,649	\$7,410,649	\$16,445,780

2. NYSERDA Industrial and Process Efficiency Program (Gas)

As part of the fast track energy efficiency program phase of the Energy Efficiency Portfolio Standard (EEPS) proceeding, NYSERDA received authorization in March 2009 to increase its electric spending for the Industrial and Process Efficiency Program by about \$6 million for the period through the end of 2011. As part of its 90 day filing that it filed on November 21, 2008, NYSERDA submitted a proposal for complementary gas measures as part of its Industrial and Process Efficiency Program. It subsequently filed a program update on June 2, 2009.

NYSERDA's proposal would address the needs of all industrial customers, with an emphasis on large (2 MW or greater electric demand) customers, and the program assumes that all



Industrial and Process Efficiency Program customers with gas service would be eligible to participate in the gas component. NYSERDA states that this program targets facilities whose participation has been limited in the past due to insufficient funding for natural gas improvements. NYSERDA further explains that although the emphasis of this program is on process improvements, it routinely explores other energy efficiency measures with participating customers.

The proposal requests that gas funding be combined with approved electric funding, so that gas efficiency efforts could be integrated with electric efficiency efforts through a "one-stop" Industrial and Process Efficiency Program. The updated program description includes bidding as a planned, complementary program delivery component to the NYSERDA Industrial and Process Efficiency Program. NYSERDA states that a bidding component would help meet goals, assess marketplace price points, and provide alternative paths to increase market penetration.

The proposed program would focus on key manufacturing sectors in New York, such as: chemicals and pharmaceuticals, printing and publishing, automotive, food processing, and forest products. Data centers are also included since their energy use profile is similar to manufacturing. In addition, agriculture, mining, extraction, and water and wastewater facilities are targeted because they have similar process-oriented missions and expectations. Incentives would be offered for both electric and gas energy efficiency projects in all of these sectors that reduce energy use per unit of production.

NYSERDA seeks to incorporate a total of \$23.8 million of gas funding into the Industrial and Process Efficiency Program to achieve a total savings of 2,302,000 MMBtu.

**NYSERDA Industrial and Process Efficiency Program  
Proposed Program Costs for the Years 2009-2011<sup>2</sup>**

	2010	2011	2012	2013	2014	2015	Total
Annual EEPS Spending	\$700,000	\$4,000,000	\$8,100,000	\$7,400,000	\$3,100,000	\$500,000	\$23,800,000
Outreach/Marketing	\$200,000	\$360,000	\$0	\$0	\$0	\$0	\$560,000

Note: The \$560,000 budget for Outreach/Marketing is included in the total program budget of \$23.8M for 2009-2011

**NYSERDA Industrial and Process Efficiency Program  
Natural Gas Installed MMBtu Impacts**

	2010	2011	2012	2013	2014	2015	Total
Annual Savings	115,000	575,000	921,000	575,000	115,000	0	2,302,000

As described above, NYSERDA is also requesting approval to:

- Develop and issue a bidding solicitation for large industrial customers, using \$20 million (of the \$93 million previously approved Industrial and Process Efficiency electric funding) to achieve a minimum of 187,000 MWh of savings (of the total 840,000 MWh goal)
- Integrate \$8 million of natural gas funding into the bidding solicitation (of the \$23.8 million requested) to achieve a minimum of 730,000 MMBtu of savings (of the total 2,302,000 MMBtu proposed).

If approved, these actions would result in an allocation of approximately 33% of the electric and gas budgets and goals for 2010 and 2011 to the bidding component of the Industrial and Process Efficiency Program.

NYSERDA expects the evaluation budget for the gas portion of the Industrial and Process Efficiency Program to be approximately 5% of gas program funding. About 80% of the

<sup>2</sup> All funding will be encumbered by December 31, 2011. Expenditures and energy savings that accrue after 2011 reflect the lag for measures encumbered in late 2011 and payments made after a period of verified installed savings.

evaluation funding would be allocated to impact evaluation. The remainder would be roughly equally split between process and market evaluation.

NYSERDA expects that evaluation plans described in the Supplemental Revision could also apply to the Industrial and Process Efficiency Program gas funding being requested, and that the electric and gas program components would be evaluated in a coordinated fashion. Evaluating gas savings associated with this filing would be similar to what NYSERDA described for the Industrial and Process Efficiency Program electric savings in its August 22, 2008 filing. Funds earmarked for evaluating the gas portion would be added to the existing electricity-focused evaluation budget.

NYSERDA proposes to increase and expand its outreach efforts, and focus on direct and continual customer contact. NYSERDA states that it would engage its network of FlexTech service providers to actively market the program to the target audience. NYSERDA also proposes to enhance existing partnerships and work collaboratively with representatives of New York's investor-owned utilities to market the program, and would promote the program at energy and sustainability conferences and through direct customer interactions. Outreach efforts would specifically target additional opportunities for Industrial and Process Efficiency customers.

### 3. NYSERDA Waste Energy Recovery Program (Electric & Gas)

On June 2, 2009, NYSERDA filed an update to its 90 Day Filing proposal that it filed originally on November 21, 2008. The June 2, 2009 filing included an update of its proposed Waste Energy Recovery Program.

The proposed Waste Energy Recovery Program would focus on harvesting waste energy and promoting business models which

offer a full suite of waste energy recovery technologies and services. Waste energy exists in various forms, such as steam system pressure-reducing-valve pressure drops, flared combustible gas, and dissipated heat. According to NYSERDA, capture of waste energy could displace electric-resistance heating and electric-driven cooling or could be used to produce electricity on-site, yielding savings of utility-supplied electric energy. Its capture could also be used to displace natural-gas-driven heating to make hot water or pre-heat boiler feed water, yielding savings of utility-delivered natural gas.

NYSERDA states that the proposed Waste Energy Recovery Program would complement other existing NYSERDA programs<sup>3</sup> and that it is designed to achieve savings of utility-supplied electric energy (MWh) and natural gas (MMBtu), and to reduce electric grid peak loads (MW).

NYSERDA proposes an overall combined gas and electric program budget of \$5.75 million through 2011, with approximate annual budgets of \$2.3 million (one-half derived from electric funds, one-half from natural gas funds). The program would provide about \$2 million of incentives annually. According to NYSERDA, during each program year the program would install four systems. It is anticipated that two would deliver electric peak-load reduction of about 200 kW each and operate at a 75% annualized capacity factor. The remaining two would each deliver natural gas savings of 20,000 MMBtu/year. Accordingly, the program would deliver 2,628 MWh of electric savings, 0.4 MW of peak load reduction, and 40,000 MMBtu of natural gas savings,

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<sup>3</sup> NYSERDA states that the proposed program complements existing programs such as the Industrial Process and Product Innovation Program, Existing Facilities Program, and Statewide CHP Programs. These existing programs support certain aspects of waste energy recovery technologies such as efficient heat exchanges in industrial settings, steam backpressure turbines, organic Rankin cycle systems, etc.

annually, by 2011. Individual projects would be eligible to receive up to \$500,000, or 50% of the overall cost of the project, whichever is less.

The program would use an annual competitive solicitation, which NYSERDA states would allow it to select the most promising projects to deliver the expected savings. These projects would also provide market intelligence to accelerate adoption rates for applicable technologies. Milestone-based contracts would be issued, with the majority of the payments tied to the installation and commissioning of the equipment. The program would be available to all eligible customers who pay the System Benefits Charge (SBC), regardless of customer size, location, or end-use sector. However, NYSERDA anticipates that large industrial customers located upstate would offer the best programmatic fit.

NYSERDA proposes that the program would begin in the third quarter of 2009 with a one-year lag before equipment is installed and operational, and that the program would operate for two-and-a-half years, covering the period 2009-2011. The program would have a spending rate of \$2 million annually for incentive payments. Thus, for calendar year 2009, in which the program would be active only for half a year (the second half of 2009), the spending to be achieved would be \$1 million.

**Proposed NYSERDA Waste Energy Recovery Program  
Proposed Program Costs for the years 2009 – 2011**

	2009	2010	2011	Total
Gas	\$575,000	\$1,150,000	\$1,150,000	\$2,870,000
Electric	\$575,000	\$1,150,000	\$1,150,000	\$2,870,000
Annual EEPS Spending	\$1,150,000	\$2,300,000	\$2,300,000	\$5,750,000

Budget does not include marketing costs

NOTE: All funding will be encumbered by December 31, 2011. All expenditures and energy savings that accrue after 2011 reflect the lag for measures encumbered in late 2011 and installed in 2012.

NYSERDA expects the evaluation budget for the Waste Energy Recovery Program to be somewhat less than 5% of the program funding level. The Waste Energy Recovery evaluation budget would be designed to meet the specific needs of the program and would be allocated primarily to impact evaluation (approximately 65%) with the remainder for process evaluation. NYSERDA states that its evaluation approach is designed to afford flexibility to adapt the evaluation approaches that best suit the program as implemented, once greater understanding has been achieved. NYSERDA's proposal also explains that evaluation plans for early demonstration of technologies necessitate flexibility because evaluation work varies with the technology and project types/stages and with program adjustments.

The planned impact evaluations would involve field measurement and verification of claimed savings and an assessment of site replication. A process evaluation would assess feedback on technology applications, information generation, and dissemination and technology transfer of program elements. Installed systems would be monitored for a minimum of twelve months.

Program participation would be encouraged by marketing the competitive solicitations to stakeholders, such as system installers, contractors, engineering firms, and product manufacturers. NYSERDA intends to contract with the equipment installers or host sites to design, specify, install, commission, monitor, and report on performance and lessons learned.

NYSERDA's proposal states that use of a traditional Total Resource Cost (TRC) test is not appropriate in the near term since this program addresses technology demonstration at the pre-deployment stage, and that this program is intended to

gain market intelligence and advance the market penetration of the technology.

**Table 1****Approved Large Industrial Electric Program Costs & Savings Targets**

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>Total 2009-2011</u>	<u>% of Budget</u>
<b><u>Niagara Mohawk</u></b>					
<i>Energy Initiative Program</i>					
Cumulative Savings (MWhs)	0	22,930	22,930	45,860	
Program & Administration Costs	\$0	\$6,249,396	\$6,249,396	\$12,498,793	95%
<u>Evaluation/M &amp; V Costs</u>	<u>\$0</u>	<u>\$328,916</u>	<u>\$328,916</u>	<u>\$657,831</u>	5%
Total Costs	\$0	\$6,578,312	\$6,578,312	\$13,156,624	

**Table 2****Approved Large Industrial Gas Program Costs & Savings Targets**

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>Total 2009-2011</u>	<u>% of Budget</u>
<b><u>NYSERDA</u></b>					
<i>Industrial and Process Efficiency Program</i>					
Cumulative Savings (Dekatherms)	0	1,151,000	1,151,000	2,302,000	
Program & Administration Costs	\$0	\$5,334,504	\$5,334,504	\$10,669,007	95%
<u>Evaluation/M &amp; V Costs</u>	<u>\$0</u>	<u>\$280,763</u>	<u>\$280,763</u>	<u>\$561,527</u>	5%
Total Costs	\$0	\$5,615,267	\$5,615,267	\$11,230,534	



**Table 3****EEPS Gas Collections to be Transferred from Utilities to NYSERDA**

<b><u>NYSERDA</u></b>	<b><u>2009</u></b>	<b><u>2010</u></b>	<b><u>2011</u></b>	<b><u>Total</u></b>	
<i><u>Industrial and Process Efficiency Program</u></i>	\$0	\$5,615,267	\$5,615,267	\$11,230,534	
<b><u>Transfers to NYSERDA</u></b>	<b><u>2009</u></b>	<b><u>2010</u></b>	<b><u>2011</u></b>	<b><u>Total</u></b>	<b><u>Percentage</u></b>
Central Hudson	\$0	\$102,831	\$102,831	\$205,663	1.831%
Con Edison	\$0	\$1,428,827	\$1,428,827	\$2,857,655	25.445%
Corning	\$0	\$49,709	\$49,709	\$99,418	0.885%
NYSEG	\$0	\$348,896	\$348,896	\$697,793	6.213%
Niagara Mohawk	\$0	\$655,381	\$655,381	\$1,310,762	11.671%
O&R	\$0	\$156,176	\$156,176	\$312,352	2.781%
RG&E	\$0	\$334,591	\$334,591	\$669,181	5.959%
KEDLI	\$0	\$772,548	\$772,548	\$1,545,095	13.758%
KEDNY	\$0	\$1,150,479	\$1,150,479	\$2,300,959	20.488%
NFG	\$0	\$581,128	\$581,128	\$1,162,256	10.349%
<u>St. Lawrence</u>	<u>\$0</u>	<u>\$34,700</u>	<u>\$34,700</u>	<u>\$69,401</u>	<u>0.618%</u>
TOTAL GAS	\$0	\$5,615,267	\$5,615,267	\$11,230,534	100.000%