

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service
Commission held in the City of
Albany on September 17, 2009

COMMISSIONERS PRESENT:

Garry A. Brown, Chairman
Patricia L. Acampora
Maureen F. Harris
Robert E. Curry, Jr.
James L. Larocca

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 ANOTHER

(Issued and Effective September 18, 2009)

BY THE COMMISSION:

INTRODUCTION

In this order, the Commission approves, with modifications, selected Energy Efficiency Portfolio Standard (EEPS) natural gas energy efficiency programs designed to serve the large industrial customer market segment and rejects one proposed program. The approved programs include the Energy Initiative Program (gas) to be administered by Niagara Mohawk Power Corporation d/b/a National Grid (Niagara Mohawk); and the large industrial portion of the Commercial, Industrial and Multi Family Energy Efficiency Program (gas) to be administered by The Brooklyn Union Gas Company d/b/a National Grid NY and KeySpan Gas East Corporation d/b/a National Grid (KEDNY/KEDLI). In

addition, we do not approve the Advanced Burner Program (gas) proposed by the New York State Energy Research and Development Authority (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.¹ 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. Program administrators submitted numerous program proposals 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 July 1, 2009 [SAPA 08-E-1127SP3]. The minimum period for the receipt of public comments pursuant to SAPA regarding that notice expired on August 17, 2009. Comments were received from Multiple Intervenors (MI), the Center for Economic Growth (CEG), the Economic Development Corporation of

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

Warren County (EDC) and the Capital Region Building Owners and Managers Association(BOMA). These comments were summarized and/or addressed in previous Commission orders.²

NOTICE SOLICITING COMMENTS

On April 21, 2009, the Secretary issued a 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. As noted above, the comments received on the large industrial programs were summarized and/or addressed in previous orders.

On August 11, 2009, the Secretary issued a Notice Soliciting Comments that invited interested parties to comment on how to estimate energy savings from commercial and industrial energy efficiency programs on a standardized basis and, in particular, on a document prepared by TecMarket Works, a contractor, entitled "New York Standard Approach for Estimating Energy Savings from Energy Efficiency Measures in Commercial and Industrial Programs, Public Comment Draft" dated August 10, 2009 (Technical Manual). The August 11, 2009 Notice established a deadline of August 25, 2009 for the submission of comments. The comments received regarding commercial and industrial measures are summarized later in this order.

² Case 08-E-1133, et al., Niagara Mohawk Power Corporation - Energy Efficiency, Order Approving Certain Large Industrial Customer Energy Efficiency Programs with Modifications and Rejecting Others (issued August 24, 2009), pp. 5-7; Case 08-E-1132, et al., New York State Energy Research and Development Authority - Energy Efficiency, Order Approving Electric Energy Efficiency Programs with Modifications (issued June 24, 2009), pp. 5-8.

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 (Gas)

Niagara Mohawk's proposed gas Energy Initiative Program is designed to provide large industrial customers (customers with an electric demand of 2 MW or more) financial incentives and technical assistance to assess outdated and/or inefficient energy-using systems and recommend opportunities for replacement equipment and systems. Niagara Mohawk proposes a cumulative program budget of approximately \$2.4 million through 2011. Niagara Mohawk projects a participation level of 22 customers with cumulative annualized gas savings of 44,550 MMBtu.

The proposed program offers customers the option to select from a prescriptive or custom track, depending on the complexity of their facility and unique energy savings opportunities. Prescriptive incentives are designed to cover approximately 50% of the total installed costs (including labor and equipment). Custom incentives would pay gas customers \$2.25 per therm saved based on actual first year savings determined by an engineering analysis of the completed project. The actual incentive to be paid would be the lesser of the two approaches, determined on a measure by measure basis. Prescriptive measures offered cover a range of measures including clock thermostats; boiler resets; steam traps; high efficiency fryers, steamers and convection ovens; roof, wall, floor, pipe and duct insulation; windows; and spray valves. The custom incentive would pay gas customers \$2.25 per therm saved based on actual first year savings determined by an engineering analysis of the completed

project. The custom incentive will not exceed an amount equal to approximately 50% of the total installed costs of the project.

KEDNY/KEDLI -Commercial, Industrial and Multi Family Energy Efficiency Program (Gas) (Large Industrial Portions)

On June 5, 2009, KEDNY/KEDLI updated their original filing to separate out the goals, participants, and budgets for industrial customers with gas usage greater than 12,000 dekatherms, which was subsequently updated with an errata filing dated July 10, 2009. The program would provide technical assistance and financial incentives to help customers analyze their operations in order to assess outdated and/or inefficient energy-using systems and recommend opportunities for replacement equipment and systems.

KEDNY's proposed budget for the program is \$9.5 million through 2011. KEDNY projects a participation level of 136 customers with cumulative annualized gas savings of 183,600 MMBtu. KEDLI's proposed budget for the program is \$4.5 million through 2011. KEDLI projects a participation level of 70 customers with cumulative annualized gas savings of 94,500 MMBtu. Prescriptive incentives are designed to cover approximately 50% of the total installed costs (including labor and equipment). Custom incentives would pay gas customers \$2.25 per therm saved based on actual first year savings determined by an engineering analysis of the completed project. The actual incentive to be paid would be the lesser of the two approaches (determined on a measure by measure basis). Prescriptive measures offered cover a range of measures, including clock thermostats; boiler resets; steam traps; high efficiency fryers, steamers and convection ovens; roof, wall, floor, pipe and duct insulation; windows; and spray valves.

NYSERDA – Advanced Burners (Gas)

The proposed Advanced Burners Program would primarily be used for oxy-gas combustion configurations, which use pure bottled oxygen to support combustion. NYSERDA states that its experience (based on two advanced burners projects) has shown that despite the new expense of purchasing bottled oxygen, the significant reduction in the purchase of natural gas yields a net financial savings.

The proposed program would have an annual budget of approximately \$2.3 million, about \$2 million of which would be for incentives. NYSERDA states that the program would deliver total annual savings of about 200,000 MMBtu. Projects would be eligible to receive up to \$500,000, or 50% of the overall cost of the project, whichever is less.

DISPOSITION OF PROGRAM PROPOSALS

No comments specific to these program proposals were received.

Discussion

1. Funding Principles

As a continuing general principle for all EEPS programs, monies collected from electric ratepayers 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 the project as a whole will be cost effective after inclusion of all program administrative and evaluation, measurement, and verification costs.³ 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 (Gas)

Niagara Mohawk estimates a benefit/cost TRC ratio of 1.57 for the proposed program as a whole, including administrative and evaluation costs, shareholder performance incentives, the CO₂ adder, and the Technical Manual free rider default estimate (with Staff's treatment of rebates paid to free riders). The aggregate data, with no measure detail, reflects National Grid's experience with its Massachusetts Energy Initiative Program.

In response to a Staff information request, Niagara Mohawk provided details on many specific projects, including details about the measures funded under National Grid's Energy Initiative Program in Massachusetts. The table below displays measure-category average TRC ratios based on New York upstate and downstate avoided costs estimates. The upstate ratios would apply to Niagara Mohawk. The TRC results indicate that many

³ Utility program administrators must also include estimated shareholder performance incentive amounts for evaluating the cost-effectiveness of projects.

industrial gas measures can be cost-effective as part of a Niagara Mohawk program.

MEASURES	TRC Measure Ratios With CO ₂	
	Downstate	Upstate
<i>Modeled as Retrofit -- Total Measure Costs</i>		
Boiler Combustion Controls	3.8	3.0
Boiler Reset Controls	1.8	1.5
Steam Traps	0.3	0.2
Insulation	2.0	1.6
Windows C&I Scale (Downstate Temps/Costs)	1.8	
Windows C&I Scale (Upstate Temps/Costs)		2.4
<i>Modeled as Replacement -- Estimated Incremental Cost: 40% of Total Measure Costs</i>		
Condensing Boilers All Sizes	3.1	2.5
Cooking Equipment, Commercial/Institutional	5.6	4.4
Furnace 92% + AFUE	2.1	1.6
Furnace with ECM	2.0	1.6
Hydronic Boilers all Sizes	3.4	2.7
Infrared Space Heating	5.1	4.1
Water Heater - Indirect	2.4	1.9
Water Heater - On-Demand	1.4	1.1

Notes: The TRC ratios shown for Windows C&I Scale are notably higher than the 0.4 ratio reported for windows in the NYSERDA multi-family program. This is not surprising given the different contexts. For the NYSERDA program, the TRC ratio reflected a comparison of the incremental costs and savings of new residential Energy Star double pane windows installed instead of standard double pane windows. In contrast, the comparison reflected here is of the total costs and savings of replacing old single pane windows with new double pane windows.

These averages for measure categories are based on 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 will ensure a cost effective investment on behalf of ratepayers and will not be overly burdensome for large custom projects requiring engineering study.

b. KEDNY/KEDLI - Large Industrial Portion
of Commercial, Industrial and Multi
Family Energy Efficiency Programs (Gas)

In its filing benefit/cost spreadsheet, KEDNY/KEDLI estimate benefit/cost TRC ratios of 2.01 for KEDNY and 2.12 for KEDLI for the proposed program as a whole, including administrative and evaluation costs shareholder performance incentives, the CO₂ adder, and the Technical Manual free rider default estimate (with Staff's treatment of rebates paid to free riders). As with Niagara Mohawk's filing, the aggregate data, with no measure detail, reflects experience that National Grid has gained in Massachusetts.

Consistent with the discussion of the measure category TRC analysis for the Niagara Mohawk program, the table above provides TRC ratios which are indicative of the benefit/cost ratios of the measures when downstate avoided cost estimates are applied. As with the Niagara Mohawk results, the TRC estimates indicate that many industrial gas measures can be cost-effective as part of KEDNY/KEDLI programs.

3. Customer Outreach and Education/Marketing

Consistent with previous 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 are approving reflects in part our calculation of the proportional share of the expected cost of EEPS gas programs, the size of the large industrial customer market, and required incremental funding. The Niagara Mohawk gas program will be funded with incremental funding. The KEDNY/KEDLI gas programs are replacing their

existing interim programs and do not require incremental funding.

In general, the funding allocations have been guided by our May 19, 2009 order establishing targets and standards for natural gas efficiency programs (May 19, 2009 Order).⁴ The May 19, 2009 Order adopted a gas usage reduction target of 4.34 Bcf per year through the end of 2011. We estimated that a total of \$130 million will be required annually to meet the target. That estimate includes current spending levels within interim programs as well as the "fast track" programs. After accounting for the interim and fast track program spending, the estimated net available increase in efficiency spending was determined to be approximately \$56 million. The May 19, 2009 Order's target assumes a portfolio customer mix of 12.5% large commercial/industrial. This share is the primary basis for the allocations of funding to the programs being authorized. For the utility EEPS proposals being considered that have similar interim programs, the EEPS programs are being substituted for the interim programs.

a. Niagara Mohawk Energy
Initiative Program (Gas)

Niagara Mohawk requested \$902,821 in funding on an annualized basis, and we are approving \$784,733 annually for both 2010 and 2011. This funding amount approved for the gas program represents approximately 87% of the amount requested by Niagara Mohawk to serve industrial gas customers that have 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.

⁴ Case 07-M-0548, Energy Efficiency Portfolio Standard, Order Establishing Targets and Standards for Natural Gas Efficiency Programs (issued May 19, 2009).

Niagara Mohawk requests to make a clarification regarding which customers would be served by this program. It suggests that customers with either (a) electric accounts with load of at least 2 MW or (b) gas accounts with annual gas usage of 7,000 dekatherms or greater be eligible for incentives for both electric and gas efficiency measures, consistent with National Grid's commitment to providing integrated efficiency solutions for its customers. However, it also notes that the 7,000 dekatherms delineation for "large" customers could potentially capture customers such as larger schools, grocery stores, and similar facilities. The EEPS funds that are being authorized in this order are for the purpose of serving the large industrial customer market segment. Those funds should be dedicated exclusively to customers that are clearly large industrial (i.e., with appropriate Standard Industrial Classification [SIC] coding, etc.). Further, we do not believe that a large industrial gas customer should be required to have an electric load of at least 2 MW in order to participate in a natural gas large industrial energy efficiency program. Consequently, we direct Niagara Mohawk to offer the large industrial component of its gas Energy Initiative Program to all firm natural gas customers with an annual usage of at least 10,000 dekatherms.

We have a concern with the costs projected by Niagara Mohawk for administration. Niagara Mohawk claims that it anticipates synergy savings for administrative costs as a result of running both the gas and electric Energy Initiative Programs together, yet its projected administrative costs for the gas portion of the combined program are significantly higher than its affiliate's administrative costs for a gas-only program that would not be expected to have any such synergy savings. The

table below gives the relative cost projections filed by the utilities:

	Admin as % of Total Program Budget	Customer Incentives as % of Total Program Budget	Total # of Participants	Avg Cost/ Participant	Avg Cost/ MMBTu Saved
NIMO Gas Energy Initiative	48.5%	47%	22	\$102,593	\$50.66
KEDNY Large Industrial	44.0%	51%	136	\$65,694	\$48.66
KEDLI Large Industrial	41%	56%	70	\$60,595	\$44.88

Note: Administration in the table above includes Program Planning and Administration, Implementation, and Marketing (excludes proposed Evaluation & Market Research, and does not consider any proposed Shareholder Performance Incentives).

An analysis of the components making up the respective TRCs projected for Niagara Mohawk's gas Energy Initiative Program and its affiliate's programs similarly reveals significantly higher administrative costs for the Niagara Mohawk program. To date, Niagara Mohawk has not sufficiently explained why there should be such a difference and higher costs upstate. As a result, we shall direct Niagara Mohawk and its KEDNY/KEDLI affiliates to file in their Implementation Plans greater detail to clearly delineate all costs that are being charged to Administration and Implementation so that we may compare the projections by the same cost categories for each program.

Niagara Mohawk also proposes to include windows as a prescriptive rebate measure, with a \$1 per square foot incentive, capped at 2,500 square feet. Since the cost-effectiveness of window replacements are highly site and condition specific, we reiterate the requirement that individual measures must be cost-effective on a stand-alone basis in order for an incentive to be offered. In addition, Niagara Mohawk proposes to offer a custom incentive that would pay gas customers \$2.25 per therm saved based on actual first year savings determined by an engineering analysis of the completed

project (not to exceed 50% of total installed costs). That custom incentive is approved providing the therm savings are calculated in accordance with the Commercial & Industrial Technical Manual protocols and procedures for calculating energy savings.

Niagara Mohawk proposes to work in close collaboration with NYSERDA's High Performance New Construction Program to promote better building and design practices in new construction and major renovation markets. Niagara Mohawk proposes to early-identify new construction opportunities in the industrial sector which will permit offering these customers energy efficiency services provided through NYSERDA's High Performance New Construction Program. That component is approved on the assurance by Niagara Mohawk that it will cause no incremental costs to the Energy Initiative Program for these services related to new construction.

Finally, 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.

b. KEDNY/KEDLI – Large Industrial Portion
of Commercial, Industrial and Multi
Family Energy Efficiency Programs (Gas)

KEDNY requested \$3,573,772 in funding on an annualized basis and KEDLI requested \$1,696,648 in funding on an annualized basis. We are approving the annual budgets as requested for both 2010 and 2011, to serve industrial customers with a gas load of 12,000 Dt or greater. The broader commercial and small industrial program, designed to serve all non-residential customers with loads greater than 100kW, will be addressed in the future. However, the proposed combined heat and power

systems component of the programs will not be approved for funding at this time, and instead will be addressed in the future. In addition, as we stated above for Niagara Mohawk, no incentives should be paid for window replacements unless it is demonstrated that such measures are cost-effective. In addition, KEDNY/KEDLI propose to offer a custom incentive that would pay gas customers \$2.25 per therm saved based on actual first year savings determined by an engineering analysis of the completed project (not to exceed 50% of total installed costs). That custom incentive is approved providing the therm savings are calculated in accordance with the Commercial & Industrial Technical Manual Protocols and procedures for calculating energy savings.

KEDNY/KEDLI currently operate interim gas energy efficiency programs for commercial and industrial customers, which began on September 1, 2007. These programs are part of a suite of programs included in their five-year rate plans ending December 31, 2012.⁵ The programs for large industrial customers approved in this order will replace the portion of the current interim programs dedicated to large industrial customers. There is sufficient room in the interim programs budget to fund the programs for large industrial customers approved in this order, at the budget level approved in this order, without incremental funding or collections. All other customer types currently being served by the remaining portions of the current interim programs should continue to be served under the interim program until such time as more permanent programs can be considered for those customer segments.

⁵ Case 06-G-1185, et al., The Brooklyn Union Gas Company d/b/a KeySpan Energy Delivery New York - Gas Rates, Order Authorizing Interim Gas Energy Efficiency Programs and Related Proposals (issued July 18, 2007).

5. Rejected Program

We are not approving incremental funding of NYSERDA's Advanced Burners Program with EEPS funds at this time. Although we believe that there may be potential gas energy savings opportunities with a properly designed advanced burners program, we find the program as proposed by NYSERDA to be largely exploratory and problematic for several reasons. Most 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 directly in the near term to achieving the energy savings goals and targets we have established. Moreover, there is uncertainty regarding the cost-effectiveness of the proposed Advanced Burners Program. There is also uncertainty regarding the extent to which EEPS and SBC funds could be layered, which could result in excessive levels of subsidies. Consequently, we are not confident at this time that the program as proposed would make appropriate use of EEPS funds.

However, we do take notice of the potential for natural gas pipeline savings that could be achieved with a cost-effective Advanced Burners Program and strongly encourage NYSERDA to continue to gain knowledge and collect information about this technology, and to follow the overall status and development of advanced burner technologies nationwide. We also encourage NYSERDA to continue to study the applicability of the technology and to determine its net economic and energy savings benefits.

6. Policy Guidelines Regarding Customized Incentives

In order to ensure the appropriate expenditure of ratepayer dollars, we will require that proper documentation be obtained (i.e., itemized invoices showing the installation costs of the energy efficiency measures) by the utilities before any

customized 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 (Gas)

Niagara Mohawk has included with its proposed Energy Initiative Program (gas) a plan to evaluate the program that covers key elements, including process and impact evaluation, budget, sampling strategies, 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 that the actual budget could be higher or lower. Moreover, there is a no breakdown of the approximate cost of the key elements of the evaluation effort, such as process and impact evaluation. Relative to sampling strategies, Niagara Mohawk 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." The scope and timing of evaluation efforts is not sufficiently defined, the impact evaluation methodology is left open-ended, and there is no breakdown of data for specific measures and insufficient evidence that the input assumptions are reliable and applicable to New York. In general we find that the plan as presented lacks needed

specificity. Also, the proposed evaluation plan provides an inadequate discussion of how Staff and the Evaluation Advisory Group (as appropriate) will effectively execute their oversight and coordination responsibilities. The evaluation plan should also provide an opportunity for Staff to review the critical elements of the evaluation process, including customer surveys, statistical approaches, modeling techniques, and draft reports.

b. KEDNY/KEDLI - Large Industrial Portion
of Commercial, Industrial and Multi
Family Energy Efficiency Programs (Gas)

KEDNY/KEDLI have included with their proposed Commercial, Industrial and Multi Family Energy Efficiency Programs (gas) a plan to evaluate the program that covers key topics, including process and impact evaluation, evaluation budget, sampling strategies, 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 address the same issues identified for the affiliate Niagara Mohawk program described above.

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 and 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.

DISPOSITION OF TECHNICAL MANUAL

Interested parties were asked to comment on a draft Technical Manual that covers the energy savings calculation procedures for commercial and industrial energy efficiency measures. Comments were submitted by New York State Electric & Gas Corporation and Rochester Gas and Electric Corporation (NYSEG/RGE), the New York Independent System Operator, EnerNOC, National Grid, and NYSERDA. Additionally, a letter was submitted by the "Joint Utilities," representing NYSEG/RGE; National Grid; NYSERDA; Consolidated Edison Company of New York, Inc.; Central Hudson Gas & Electric Corporation; Orange and Rockland Utilities, Inc.; and the National Association of Energy Services Companies, describing their intention to hire a consultant to conduct further review of the Technical Manual. Since the consultant review has not been completed, comments from these parties were not received before the comment period deadline.

A total of 88 comments were logged. The comments were classified generally as clarifications or requests for revisions. Responses to each of the comments are summarized in Appendix 3. In general, comments either resulted in changes to the Technical Manual (designated "CHG" in the Appendix) or were referred to the Evaluation Advisory Group Technical Manual subcommittee for further consideration (designated "EAG" in the Appendix). In addition, no further action is planned for comments that either did not request a change or requested a change that was clearly undesirable (designated "None" in the Appendix). The comments requesting changes that conflict with contents of already approved technical manuals were designated for Evaluation Advisory Group review and consideration for a future version.

The comments included changes to computation formulas, providing additional data to various tables, and editorial changes. Appropriate corrections were made as part of the review process. Other comments requested review or changes to parameters, expanded measure coverage, and the role of evaluation in manual updates and maintenance. Changes were made to some parameters after reviewing additional data sources. Additional measures were also added. Comments requesting alternative approaches or algorithms were referred to the Evaluation Advisory Group review subcommittee for further study. Issues relating to field data collection, tracking system design, and site specific vs. secondary data sources are also being addressed by the Evaluation Advisory Group review subcommittee.

Discussion

To evaluate the performance of EEPS programs in ways that are consistent, fair and transparent across all program administrators, we are establishing a process for the measurement of energy savings concurrent with program approvals. A key element of this effort is the technical manuals, which provide a standardized approach for measuring energy savings.

The Technical Manual we are approving will put interim approaches for estimating energy savings in place until they can be validated or updated through the Evaluation Advisory Group, using results from evaluation studies conducted in accordance with approved protocols or with results from other credible data sources. An Evaluation Advisory Group subcommittee is engaged in a detailed review of previous editions of the Technical Manual and has already made notable progress. It is our expectation that recommendations for future adjustments to approved Technical Manuals will come to us periodically from the Evaluation Advisory Group through the Director of the Office of

Energy Efficiency and the Environment. The technical manuals are not static documents and we have confidence that the Evaluation Advisory Group will make reasoned and fair recommendations.

In resolution of the issues described above, we will approve the protocols and procedures delineated in the Commercial and Industrial Technical Manual which have been added for the purpose of calculating energy savings achieved by Commission-approved energy efficiency programs. The approved protocols should be used to calculate the energy savings for measures installed subsequent to the date of this Order.

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, gas energy efficiency programs designed to serve the large industrial customer market segment to be administered by Niagara Mohawk, KEDNY and KEDLI.

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), The Brooklyn Union Gas Company d/b/a National Grid NY, and KeySpan Gas East Corporation d/b/a National Grid (KEDNY/KEDLI) is approved by program as set forth in Table 1 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 Table 1 of Appendix 2 of this order. Funding may not be reallocated among programs without further approval by the Commission.

2. Niagara Mohawk and KEDNY/KEDLI shall, within 60 days of the issuance of this order, submit Implementation Plans for their approved EEPS programs that reflect 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. Each 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 particular, we direct Niagara Mohawk and KEDNY/KEDLI to file in their Implementation Plans greater detail to clearly delineate all costs that are being charged to Administration and Implementation, consistent with the discussion in this order, so that we may compare the projections by the same cost categories for each similar program.

3. Niagara Mohawk and KEDNY/KEDLI 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. Niagara Mohawk and KEDNY/KEDLI 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.

4. In the implementation plans, Niagara Mohawk and KEDNY/KEDLI 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.

5. 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.

6. 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.

7. The technical manual entitled "New York Standard Approach for Estimating Energy Savings from Energy Efficiency Measures in Commercial and Industrial Programs" dated September 1, 2009 shall be used to standardize energy savings estimation approaches, calculations, and assumptions at the measure level for estimating energy savings from the programs approved in this order and for other commercial and industrial programs going forward. A copy of the manual is available for download on the Internet at the following link:

http://www.dps.state.ny.us/Phase2_Case_07-M-0548.htm

8. Shareholder incentives and net lost revenues are not addressed by this order. If Niagara Mohawk or KEDNY/KEDLI have a rate plan that provides for either, they 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.

9. 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. Niagara Mohawk and KEDNY/KEDLI shall manage the SBC funds prudently and within the budgets authorized by the Commission.

10. The Secretary in her sole discretion may extend the deadlines set forth herein.

11. These proceedings are continued.

By the Commission,

(SIGNED)

JACLYN A. BRILLING
Secretary

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

Niagara Mohawk filed its proposed Energy Initiative Program On September 22, 2008, and filed an update to the gas portion of the program on May 28, 2009. The proposed program addresses energy efficiency by retrofitting mechanical and electrical systems in commercial, industrial, agriculture, governmental, and institutional buildings. The updated gas proposal complements Niagara Mohawk's electric program for existing industrial customers. Customers who wish to participate must have an electric load of 2 MW or greater to qualify for the program. Niagara Mohawk proposes to administer and deliver the program with in-house technical staff, account managers, and outside contractors as needed. Outside contractors would be selected through a competitive bidding process.

The program would provide technical assistance and financial 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 expects that technical services, particularly for process related systems, will be critical to identifying cost-effective energy savings.

Customers would be offered the option to select from a "prescriptive" or "custom" track depending on the complexity of their facility and unique energy savings opportunities. Prescriptive incentives are designed to cover approximately 50% of the total installed costs (including labor and equipment). Custom incentives would pay gas customers \$2.25 per therm saved based on actual first year savings determined by an engineering analysis of the completed project. The actual incentive to be paid would be the lesser of the two approaches (determined on a

measure by measure basis). The custom incentive would pay gas customers \$2.25 per therm saved based on actual first year savings determined by an engineering analysis of the completed project. The custom incentive will not exceed an amount equal to approximately 50% of the total installed costs of the project.

Prescriptive rebates include the following measures and incentive levels:

Measure	Incentive	Limitations
Clock Thermostat	\$25	Limit 5
Boiler Reset (1 Stage)	\$150	Limit 2
Boiler Reset (2 Stage)	\$250	Limit 2
Steam Traps	\$25	Limit 100
High Efficiency Fryer	\$1,000	
Steamer	\$1,000	
Convection Oven	\$1,000	
R-30 Roof Insulation	20% of installed cost	Maximum \$10,000/account
Wall Insulation	20% of installed cost	Maximum \$10,000/account
Floor Insulation	20% of installed cost	Maximum \$10,000/account
Pipe Insulation	\$1.50/linear ft	500 linear ft
Duct Insulation	\$1.50/linear ft	500 linear ft
Windows	\$1.00/sq ft	2,500 sq ft
Spray Valve	Free to customer	

Niagara Mohawk's proposed gas budget for this program is \$2,392,442 through 2011. Its projected participation level for the gas portion of the program is 22 customers, with a proposed annualized gas savings of 44,550 MMBtu through 2011.

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, in subsequent conversations with

Department Staff, Niagara Mohawk advised Staff that the complementary energy services were inadvertently included.

Niagara Mohawk proposes to work closely with NYSERDA to ensure that effective coordination takes place with the services currently 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 proposes to work in close collaboration with NYSERDA's High Performance New Construction Program to promote better building and design practices in new construction and major renovation markets. Niagara Mohawk states that its affiliate's new construction program attributes map closely with those of NYSERDA with respect to program design, incentives, technical support capacity, recommended technologies, and implementation strategies. Niagara Mohawk proposes to identify new construction opportunities in the industrial sector early on, which will permit offering these services through NYSERDA's High Performance New Construction Program.

Niagara Mohawk proposes that quality assurance measures include pre-inspections and post-inspections and that a Minimum Requirements document be used to determine whether 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 gas Energy Initiative Program costs for the years 2009 to 2011, shown below:

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

	2009	2010	2011	2009-2011 Total
Program Planning and Administration	\$127,780	\$278,619	\$354,179	\$760,578
Program Marketing & Trade Ally	\$12,090	\$48,358	\$72,537	\$132,985
Customer Incentives or Services	\$50,625	\$405,000	\$607,500	\$1,063,125
Program Implementation	\$20,000	\$80,000	\$100,000	\$200,000
Evaluation & Market Research	\$12,056	\$36,599	\$51,711	\$100,366
Annual Total	\$234,858	\$897,808	\$1,259,775	\$2,257,055

**2. KEDNY/KEDLI - Industrial Component of the Commercial,
Industrial and Multi Family Energy Efficiency Program (Gas)**

KEDNY/KEDLI filed commercial and industrial gas energy efficiency programs on September 22, 2008 and submitted an update on June 5, 2009. The update provided separate goals, participants, and budgets for the industrial component of the energy efficiency program. The program addresses energy efficiency opportunities associated with existing natural gas applications in facilities with gas usage greater than 12,000 dekatherms. The program would provide technical assistance and financial incentives to facilities to help customers analyze their operations in order to assess outdated and/or energy-inefficient systems and would recommend opportunities for replacement equipment and systems. It would also provide information and education to participants about the use of energy efficiency engineering practices to advance better design and construction practices in buildings. KEDNY/KEDLI expect that with large industrial customers those technical services, particularly for process-related systems, would be critical for identifying cost-effective energy savings. They propose to deliver the program with in-house technical staff, account

managers, and outside contractors, as needed. Outside contractors would be selected through a competitive bid process to ensure that the services are received at a competitive rate.

KEDNY's proposed budget for the industrial program is \$9,492,391 through 2011, with projected participation of 136 customers through 2011, and with cumulative annualized gas savings of 183,000 MMBtu. KEDLI's proposed budget is \$4,528,806 through 2011, with projected participation of 70 customers through 2011, and with cumulative annualized gas savings of 94,500 MMBtu.

KEDNY/KEDLI also propose to offer "custom" and "prescriptive" incentives. Customers would select from a prescriptive or custom track depending on the complexity of their facility. Prescriptive incentives are designed to cover approximately 50% of the total installed costs (including labor and equipment). Custom incentives would pay gas customers \$2.25 per therm saved based on actual first year savings determined by an engineering analysis of the completed project. The actual incentive to be paid would be the lesser of the two approaches, determined on a measure by measure basis. Prescriptive measures offered for installation of gas energy efficiency measures include clock thermostats; boiler resets; steam traps; high efficiency fryers; steamers; convection ovens; roof, wall, floor, pipe, and duct insulation; and energy efficient windows. The proposed incentive levels are shown below:

Industrial Program Prescriptive Rebates

Measure	Incentive	Limitations
Clock Thermostat	\$25	Limit 5
Boiler Reset (1 Stage)	\$150	Limit 2
Boiler Reset (2 Stage)	\$250	Limit 2
Steam Traps	\$25	Limit 100
High Efficiency Fryer	\$1,000	
Steamer	\$1,000	
Convection Oven	\$1,000	
R-30 Roof Insulation	20% of installed cost	Maximum \$10,000/account
Wall Insulation	20% of installed cost	Maximum \$10,000/account
Floor Insulation	20% of installed cost	Maximum \$10,000/account
Pipe Insulation	\$1.50/linear ft	500 linear ft
Duct Insulation	\$1.50/linear ft	500 linear ft
Windows	\$1.00/sq ft	2,500 sq ft
Spray Valve	Free to customer	

KEDNY/KEDLI plan to reach out to trade allies, such as equipment engineers, architects, vendors, and mechanical contractors to educate and encourage adoption of new high performance energy efficiency equipment and to promote energy efficiency usage in industrial facilities. They also propose to continue working with NYSERDA, the Long Island Power Authority, and other program administrators to ensure that effective coordination can take place with existing energy efficiency programs offered to industrial customers. KEDNY/KEDLI did not provide a specific plan for quality assurance of installations.

KEDNY/KEDLI provided a breakdown of the Industrial component of the Commercial, Industrial and Multi Family Energy Efficiency Program costs for the year 2009- 2011 by category:

KEDNY Industrial Component of Energy Efficiency
Proposed Program Costs for the Years 2009-2011

Industrial Component	2009	2010	2011	Total
Program Planning and Administration	\$140,000	\$350,000	\$350,000	\$840,000
Program Marketing & Trade Ally	\$60,000	\$174,000	\$174,000	\$408,000
Customer Incentives or Services	\$675,000	\$1,957,500	\$1,957,500	\$4,590,000
Program Implementation	\$430,000	\$1,130,000	\$1,130,000	\$2,690,000
Evaluation and Market Research	\$58,431	\$174,000	\$174,000	\$406,431
Performance Incentive	\$82,053	\$237,954	\$237,954	\$557,960
Total Utility Cost	\$1,445,484	\$4,023,454	\$4,023,454	\$9,492,391

KEDLI Industrial Component of Energy Efficiency
Proposed program costs for the years 2009-2011

Industrial Component	2009	2010	2011	Total
Program Planning and Administration	\$40,000	\$124,960	\$124,960	\$289,920
Program Marketing & Trade Ally	\$20,000	\$56,800	\$56,800	\$133,600
Customer Incentives or Services	\$337,500	\$1,012,500	\$1,012,500	\$2,362,500
Program Implementation	\$200,000	\$561,000	\$561,000	\$1,322,000
Evaluation and Market Research	\$20,000	\$56,800	\$56,800	\$133,600
Performance Incentive	\$41,027	\$123,080	\$123,080	\$287,186
Total Utility Cost	\$658,527	\$1,935,140	\$1,935,140	\$4,528,806

3. NYSERDA - Advanced Burners (Gas)

NYSERDA filed a proposal for the Advance Burners Program on November 21, 2008, and an update on June 2, 2009. The proposed Advanced Burners Program is designed to achieve savings of pipeline-delivered natural gas (MMBtu). Although it is not targeted specifically for large industrial customers, the program is expected to have large industrial applications. Advanced burners would predominantly be used for oxy-gas combustion configurations, which use pure bottled oxygen to support combustion (rather than using oxygen available in

ambient air). NYSERDA references previous experience (based on its support of two projects with the applicable technology), and states that its experience has shown that despite the added expense of purchasing bottled oxygen, the significant reduction in the purchase of natural gas yields a net financial savings.

NYSERDA states that the proposed program complements its existing Industrial Process and Product Innovation Program and its Existing Facilities Program. The program would help NYSERDA acquire real world learning of the applicability and performance of systems to determine key niche markets, such as glassmaking and industrial furnace operations, and optimization scenarios.

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 have an annual budget of approximately \$2.3 million (gas), about \$2 million of which would be for incentives to install four systems each year. It is anticipated that each of the systems installed would deliver natural gas savings of approximately 50,000 MMBtu/year, resulting in about 200,000 MMBtu of natural gas savings annually. Projects would be eligible to receive up to \$500,000, or 50% of the overall cost of the project, whichever is less.

**Advanced Burners Program
Natural Gas Program Expenditures 2009-2015**

	2009	2010	2011	Total
Annual EEPS Spending	\$1,150,000	\$2,3000,000	\$2,3000,000	\$5,750,000

Notes: Budget does not include marketing.
All funding will be encumbered by December 31, 2011.

**Advanced Burners Program
Natural Gas Installed MMBtu Impacts (projected) 2009-2015**

	2009	2010	2011	2012	Total
Annual Savings	0	100,000	200,000	200,000	500,000

Notes: All 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 Advanced Burners Program to be slightly less than 5% of the program funding level, that the evaluation budget will be designed to account for the specific needs of the program, and that the evaluation budget will be allocated primarily to impact evaluation (65%), with the remainder used for process evaluation.

NYSERDA claims a Total Resource Cost (TRC) test result of 4.9 without carbon and 5.4 with carbon. Backup details for the calculations were not provided.

The primary evaluation goal for the Advanced Burner Program would be measurement and verification of the claimed natural gas savings (MMBtu) and review of the research methodology for niche markets. Since this application is in an early stage of market development, requiring several cycles to achieve market awareness, the evaluation would also review knowledge benefits gained from these projects and conclusions drawn. The Advanced Burners Program design includes extensive

measurement, with monitoring to be conducted for a minimum of 12 months.

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

Table 1**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>
<u>Niagara Mohawk</u>					
<i>Energy Initiative Program</i>					
Cumulative Savings (Dekatherms)	0	12,250	18,376	30,626	
Program & Administration Costs	\$0	\$745,496	\$745,496	\$1,490,992	95%
<u>Evaluation/M & V Costs</u>	<u>\$0</u>	<u>\$39,237</u>	<u>\$39,237</u>	<u>\$78,474</u>	5%
Total Costs	\$0	\$784,733	\$784,733	\$1,569,466	
	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>Total 2009-2011</u>	<u>% of Budget</u>
<u>KEDNY</u>					
<i>Commercial, Industrial and Multi Family Energy Efficiency Program</i>					
Cumulative Savings (Dekatherms)	0	78,300	78,300	156,600	
Program & Administration Costs	\$0	\$3,395,083	\$3,395,083	\$6,790,166	95%
<u>Evaluation/M & V Costs</u>	<u>\$0</u>	<u>\$178,689</u>	<u>\$178,689</u>	<u>\$357,378</u>	5%
Total Costs	\$0	\$3,573,772	\$3,573,772	\$7,147,544	
	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>Total 2009-2011</u>	<u>% of Budget</u>
<u>KEDLI</u>					
<i>Commercial, Industrial and Multi Family Energy Efficiency Program</i>					
Cumulative Savings (Dekatherms)	0	40,500	40,500	81,000	
Program & Administration Costs	\$0	\$1,611,816	\$1,611,816	\$3,223,632	95%
<u>Evaluation/M & V Costs</u>	<u>\$0</u>	<u>\$84,832</u>	<u>\$84,832</u>	<u>\$169,664</u>	5%
Total Costs	\$0	\$1,696,648	\$1,696,648	\$3,393,296	

<u>No.</u>	<u>Party</u>	<u>Document</u>	<u>Measure</u>	<u>Comment</u>	<u>ACTION</u>		
					<u>None</u>	<u>CHG</u>	<u>EAG</u>
1	NYSEG/RGE	07-M-0548 NYSEG/RGE comments on 8-10-09 draft of Technical Manual	Commercial lighting	Reevaluate operation hours for college cafeterias, commercial condos, entertainment, manufacturing, office, and parking garages/lots		x	
2			Commercial lighting	Separate garages and lots		x	
3			Commercial lighting	Add exterior lighting		x	
4			Lighting controls	Add demand factors		x	
5			Commercial refrigerator	Typo in interactive effects table		x	
6			Commercial refrigerator	Heating interactions missing		x	
7			Commercial refrigerator	baseline description unclear		x	
8			Windows	Consider orientation			x
9			Windows	Daylighting effects			x
10			Window film	Consider orientation			x
11			Window film	Daylighting effects			x
12			Cool roof	Include emissivity	x		
13			AC and heat pumps	Missing data		x	
14			AC and heat pumps	Baseline with economizers?			x
15			AC and heat pumps	Revise RLF with right sizing?	x		
16			AC and heat pumps	Heating season peak kW calc missing	x		
17			Gas Furnaces	Duct leakage for unsealed ducts		x	
18			Gas Furnaces	Draft fan interaction		x	
19			Gas Furnaces	HLH too high?			x
20			Programmable thermostat	SEER section missing		x	
21			Duct insulation and leakage sealing	Demand savings calc missing		x	
22			Duct insulation and leakage sealing	SEER missing		x	
23			Duct insulation and leakage sealing	Use testing values			x
24			Chillers	DF appropriate	x		
25			Cooling tower	Negative demand savings			x
26			Cooling tower	Energy savings too high			x
27			RCA	No heating savings for heat pumps			x
28			Economizers	Required by code			x
29			Economizers	Missing data		x	
30			VFD	Drive losses		x	
31			Water heater	Tset for commercial systems		x	
32			Water heater	Draft fan interaction		x	
33			SDHW	Parasitics not included		x	
34			SDHW	Impact of slope and azimuth		x	
35			SDHW	Missing DF and CF		x	
36			Night covers	Transposed values?	x		
37			Compressed air	Provide savings for each action	x		

<u>No.</u>	<u>Party</u>	<u>Document</u>	<u>Measure</u>	<u>Comment</u>	<u>ACTION</u>		
					<u>None</u>	<u>CHG</u>	<u>EAG</u>
38	NYSEG/RGE	07-M-0548 NYSEG/RGE comments on 8-10-09 draft of Technical Manual	Motors	Lower torque may prevent downsizing motor		x	
39			PV	Use software instead of deemed values	x		
40			PV	Demand savings seem high			x
41			Small retail prototype	Include economizer in baseline			x
42			FS restaurant	Thermostat setpoint assumptions changed. What is the HLH and CLH impact?			x
43			Lighting	Verify fixture watts assumptions			x
44	Joint Utilities	082509 DOCS- #264993-v1-07-M- 0548 JU Draft	Lighting	Add fixtures to table			x
45	NYISO	Case 07-M-0548 NYISO Comments TecMarket Works Report	All	Need to conduct evaluations to validate approaches			x
46			All	Replace manual algorithms with IOU algorithms if superior			x
47			All	Need M&V to provide realization rate for net savings	x		
48	EnerNOC	EnerNOC Letter Comments re TecMarket Report	All	Use TMY 3 weather data	x		
49	National Grid	Final Comments 08/25/09	Indirect water heaters	Include in manual	x		
50			All	Map zip codes to one of the climate cities			x
51			Lighting	Self report operating hours vs deemed values			x
52			All	Track building types?			x
53			Cool roof	No data for offices and MF	x		
54			All	Compatibility with tracking systems			x
55			All	Combine diversity and coincidence factors			x
56			Refrigerated case fans	Revise equation			x
57			Refrigerated case fans	Revise diversity factor		x	
58			ASH controls	Revise equation			x
59			ASH controls	Use statewide average savings			x
60			ASH controls	Combine diversity and coincidence factors			x
61			ASH controls	Non-zero demand savings			x
62			ASH controls	Revise diversity factor			x
63			Refrigerated case shutoff	Timer vs. occupancy sensor controls		x	
64			Refrigerated case shutoff	No demand savings if timer control		x	
65			Refrigerated case shutoff	Revise savings methodology OK			x
66			Refrigeration LEDs	Error in equation			
67			Refrigeration LEDs	Heat loss through door - need to be metered?			x

<u>No.</u>	<u>Party</u>	<u>Document</u>	<u>Measure</u>	<u>Comment</u>	ACTION		
					<u>None</u>	<u>CHG</u>	<u>EAG</u>
68	National Grid	Final Comments 08/25/09	Commercial lighting	Different building types for hours and HVAC interaction factors		x	
69			Commercial lighting	Gas interactive effect		x	
70			Commercial lighting	Interaction factors for other HVAC system types	x		
71			Commercial lighting	Collect HVAC type?			x
72			Lighting	Other fossil fuel impacts than gas		x	
73			Commercial lighting	Drop efficient magnetic ballasts?		x	
74			Commercial lighting	New construction not eligible	x		
75			Lighting	Deemed hours vs self reported hours	x		
76			Commercial lighting	Combine diversity and coincidence factors			x
77			Commercial lighting	Set pre DF = post DF; burned out bulb fraction on average the same	x		
78			Commercial lighting	Use New England standard wattage table			x
79			Lighting controls	DSF missing		x	
80			Lighting controls	Gas interactive effect		x	
81			Lighting controls	Interaction factors for other HVAC system types	x		
82			Lighting controls	Other fossil fuel impacts than gas		x	
83			Lighting controls	Collect HVAC type?			x
84			Lighting controls	Self report operating hours vs deemed values			x
85			Lighting controls	combine DSF, diversity and coincidence factors			x
86			Lighting controls	Delta EFLH rather than ESF			x
87	NYSERDA	NYSERDA Comments Tech Manual.25 August 2009.pdf	ALL	NTG ratio not appropriate based on NYSERDA research	x		
88			ALL	Equations complex and data collection not cost effective			x