

STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION

At a session of the Public Service  
Commission held in the City of  
Albany on January 15, 2009

COMMISSIONERS PRESENT:

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

CASE 08-E-1003 - Petition of Orange and Rockland Utilities, Inc. for Approval of an Energy Efficiency Portfolio Standard (EEPS) "Fast Track" Utility-Administered Electric Energy Efficiency Program.

CASE 08-E-1007 - Petition of Consolidated Edison Company of New York, Inc. for Approval of an Energy Efficiency Portfolio Standard (EEPS) "Fast Track" Utility-Administered Electric Energy Efficiency Program.

CASE 08-E-1014 - Petition of Niagara Mohawk Power Corporation for Approval of an Energy Efficiency Portfolio Standard (EEPS) "Fast Track" Utility-Administered Electric Energy Efficiency Program.

CASE 08-E-1019 - Petition of Central Hudson Gas & Electric Corporation for Approval of an Energy Efficiency Portfolio Standard (EEPS) "Fast Track" Utility-Administered Electric Energy Efficiency Program.

ORDER APPROVING "FAST TRACK" UTILITY-ADMINISTERED  
ELECTRIC ENERGY EFFICIENCY PROGRAMS WITH MODIFICATIONS

(Issued and Effective January 16, 2009)

BY THE COMMISSION:

INTRODUCTION

In this order, the Commission approves, with modifications, Energy Efficiency Portfolio Standard (EEPS) "Fast Track" utility-administered electric energy efficiency programs for Central Hudson Gas & Electric Corporation (Central Hudson), Consolidated Edison Company of New York, Inc. (Con Edison), Orange and Rockland Utilities, Inc. (O&R) and Niagara Mohawk Power Corporation (Niagara Mohawk). The "Fast Track" utility-administered electric energy efficiency programs consist of a Small Business Direct Installation Program (Small Business Program) and a Residential Energy Star electric heating, ventilation and air conditioning program (Residential HVAC Program). O&R is given only a one-year authorization for its Residential HVAC Program as modified and Niagara Mohawk is directed to proceed with its Residential HVAC Program but to file revisions.

BACKGROUND AND SUMMARY

On June 23, 2008,<sup>1</sup> the Commission adopted a goal of reducing electricity usage (as forecast in 2007) by 15% statewide by 2015. An Energy Efficiency Portfolio Standard (EEPS) program was created for New York State to develop and encourage cost-effective energy efficiency over the long term, and immediately to commence or augment near-term efficiency measures. The six large investor-owned electric utilities were invited to submit for approval proposals for certain "Fast Track" utility-administered electric energy efficiency programs. The program plans were to include detailed benefit/cost estimates using the Total Resource Cost methodology and were to

---

<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).

demonstrate that collaborative discussions had been held including participating utilities, the New York State Energy Research and Development Authority (NYSERDA), and other interested parties to establish uniformity, particularly with respect to eligible equipment and rebate levels, to the extent compatible with the needs of utilities to design programs that meet the needs of their service territories. The program plans were also to include a detailed plan for evaluation of each individual program, including details on the scope and method of measurement and verification activities. The Commission stated program cost and megawatt-hour efficiency savings targets for the desired program proposals (for details, see attached Appendix 1, Table 1).

Central Hudson, Con Edison, O&R and Niagara Mohawk filed petitions seeking approval of Energy Efficiency Portfolio Standard (EEPS) "Fast Track" utility-administered electric energy efficiency programs (collectively, the "Electric Petitions"). New York State Electric & Gas Corporation (NYSEG) and Rochester Gas & Electric Corporation (RG&E) did not file proposals.<sup>2</sup> The following tables summarize the filings in relation to the key metrics in the original Commission targets:

<b><u>Central Hudson</u></b>				
	<b><u>EEPS Order</u></b>	<b><u>As Filed</u></b>	<b><u>Difference</u></b>	
<b><u>Residential HVAC Program</u></b>				
<u>MWh Savings</u>	1,976	2,922	47.9%	
<u>Total Budget</u>	\$1,782,518	\$2,330,505	30.7%	
<u>B/C Ratio</u>	3.9	2.0	-48.5%	
<u>\$\$/MWh</u>	\$902	\$798	-11.6%	

---

<sup>2</sup> NYSEG and RG&E later filed program proposals for similar programs, but not on the expedited basis established in the June 23, 2008 Order.

**Central Hudson**

	<b><u>EEPS Order</u></b>	<b><u>As Filed</u></b>	<b><u>Difference</u></b>
<b><u>Small Business Program</u></b>			
MWh Savings	45,803	45,360	-1.0%
Total Budget	\$12,286,910	\$12,370,030	0.7%
B/C Ratio	2.7	3.6	34.4%
\$\$/MWh	\$268	\$273	1.7%

**Con Edison**

	<b><u>EEPS Order</u></b>	<b><u>As Filed</u></b>	<b><u>Difference</u></b>
<b><u>Residential HVAC Program</u></b>			
MWh Savings	12,461	12,569	0.9%
Total Budget	\$11,243,211	\$11,128,323	-1.0%
B/C Ratio	3.9	3.2	-18.7%
\$\$/MWh	\$902	\$885	-1.9%

**Small Business Program**

MWh Savings	288,902	289,875	0.3%
Total Budget	\$77,499,523	\$76,702,688	-1.0%
B/C Ratio	2.7	2.4	-10.7%
\$\$/MWh	\$268	\$265	-1.4%

**O&R**

	<b><u>EEPS Order</u></b>	<b><u>As Filed</u></b>	<b><u>Difference</u></b>
<b><u>Residential HVAC Program</u></b>			
MWh Savings	1,461	949	-35.0%
Total Budget	\$1,318,412	\$1,917,383	45.4%
B/C Ratio	3.9	2.2	-43.6%
\$\$/MWh	\$902	\$2,020	123.9%

**Small Business Program**

MWh Savings	33,877	35,912	6.0%
Total Budget	\$9,087,821	\$16,800,667	84.9%
B/C Ratio	2.7	2.3	-14.8%
\$\$/MWh	\$268	\$468	74.4%

Note: For O&R, "As Filed" includes O&R's so-called "90 Day" revisions.

<b><u>Niagara Mohawk</u></b>			
	<b><u>EEPS Order</u></b>	<b><u>As Filed</u></b>	<b><u>Difference</u></b>
<b><u>Residential HVAC Program</u></b>			
MWh Savings	10,897	542	-95.0%
Total Budget	9,832,030	2,113,650	-78.5%
B/C Ratio	3.9	1.7	-56.9%
\$\$/MWh	\$902	\$3,900	332.2%
<b><u>Small Business Program</u></b>			
MWh Savings	252,641	135,508	-46.4%
Total Budget	\$67,772,243	\$67,679,391	-0.1%
B/C Ratio	2.7	2.5	-8.5%
\$\$/MWh	\$268	\$499	86.2%

Notes: Potential shareholder incentives are not included in the B/C Ratios.  
The "as-filed" B/C Ratios are shown as stated by the utility company.

NOTICE OF PROPOSED RULEMAKING

An individual Notice of Proposed Rulemaking concerning each of the Electric Petitions was published in the State Register on September 17, 2008. The minimum period for the receipt of public comments pursuant to the State Administrative Procedure Act (SAPA) regarding those separate notices expired on November 3, 2008. The comments received are summarized below.

NOTICE SOLICITING COMMENTS

On October 31, 2008, a Notice Soliciting Comments was issued by the Secretary that invited interested parties to comment on the Electric Petitions. A deadline of November 17, 2008 was established for initial comments and November 24, 2008 for reply comments. The comments received are summarized below.

SUMMARY OF THE POSITIONS OF THE PARTIES

Initial Comments were submitted by EarthKind Energy (EarthKind), NYSERDA, and Staff of the Department of Public Service (Staff). Reply Comments were submitted by Central Hudson, Con Edison, and O&R. Following is a summary of the Comments and Reply Comments received from the parties in this proceeding.

EarthKind

EarthKind states that it has proposed to provide its services as an Independent Administer to promote solar thermal hot water systems for 900,000 residences. It notes that its proposal has not been accepted by any of the utilities or NYSERDA. EarthKind believes that solar hot water conversions should be an element of the electric programs under consideration and cites a NYSERDA technology assessment for solar domestic hot water technologies which projects solar hot water could save 171 Million KWhs of electricity. It also notes that Central Hudson has included a solar hot water element in its gas filing (Case 08-G-1020) but did not include a solar hot water technology in its residential electric program even though, according to EarthKind, solar thermal water heating is more cost effective when applied to an electric hot water system due to the higher relative cost of electricity compared to the cost of gas.

NYSERDA

NYSERDA raises a general concern that it is unclear to what degree some of the utility program proposals may allow or not clearly prohibit the layering or double payment of rebates/financial inducements to participants for the same measure in the utility program and a NYSERDA program. NYSERDA does believe that layering may be appropriate in cases where it would be cost effective to do so to achieve a higher level of

efficiency than may be achieved otherwise. However if such layering would cause customer confusion or unproductive competition between programs, NYSERDA does not believe it would be appropriate. NYSERDA also raises a concern that the layering of rebates/financial inducements to participants could lead to difficulty in the attribution of energy savings to particular programs.

As to calculations of the total resource cost (TRC) test for each proposed program, NYSERDA notes that it is unclear from NYSERDA's review of the filings what assumptions were used by some of the utilities in conducting their TRC calculations. Additionally, the assumptions used to calculate the projected TRC calculations as contained in the June 23, 2008 Order are not readily apparent. NYSERDA recommends that to promote transparency and to enable straight forward comparisons between program administrator offerings that the Evaluation Advisory Group should develop a common process and a repository for the collection and sharing of the data used for TRC calculations.

As to market and workforce development issues, NYSERDA observes that the utility filings all indicate a need for upstream market activities and enhanced training with market segments and trade allies including builders, contractors, equipment dealers, manufacturers and regional organizations. NYSERDA remarks that it has experience in market development and training in areas identified and that it has separately proposed a statewide effort to address market development and workforce development issues.

While NYSERDA supports Central Hudson's efforts to promote the proper sizing of residential central air conditioning units using targeted rebates/financial inducements to participants, it has concerns about how the initiative will be administered and if sufficient documentation of

installations will be provided to ensure proper sizing has occurred to justify such inducements. NYSERDA is further concerned that the structure proposed by Central Hudson places significant emphasis on reducing the size (or capacity) of the air conditioning unit without sufficient analysis. NYSERDA recommends a fixed financial inducement payable to contractors who demonstrate proper sizing of the system has occurred through the use of industry-accepted software.

NYSERDA recommends that Niagara Mohawk's proposal to provide financial inducements directly to contractors who are certified by the Building Performance Institute (BPI), instead of to the participating customer choosing a BPI-certified contractor, be disallowed. According to NYSERDA, providing the inducement directly to the contractor, rather than the customer, provides no financial incentive for the customer to seek a BPI-certified contractor. Minimizing demand for such contractors would impair efforts by NYSERDA and others to create a market for BPI-certified contractors. In addition, according to NYSERDA, National Grid's proposal may have the unintended consequence of encouraging BPI-certified contractors to choose narrow, less time-intensive work scopes.

Finally, NYSERDA raises a concern with O&R's proposal that the company be allowed to tap System Benefits Charge (SBC) funds which O&R is currently collecting for transfer to NYSERDA. O&R states that it cannot achieve the megawatt-hour goals for the Small Business Program and the Residential HVAC Program within the estimated budget allocations contained in the Commission's order. O&R proposes to use other SBC funds as a supplement. NYSERDA is concerned that if the Company's request is granted, the statewide programs administered by NYSERDA would be short-changed.

Staff's General Comments

For the Residential HVAC Programs, Staff recommends that all the utilities offer identical energy efficiency measures, eligible equipment performance standards, and corresponding customer rebate amounts. The Commission had asked the utilities to collaborate with NYSEERDA and other interested parties to establish uniformity, but Staff notes that despite any efforts at collaboration the utilities have proposed a wide range of variance in their proposals. Staff is concerned that such variance will create confusion, particularly where utility service territories are adjacent and the customers are served by one media market. Staff notes that other states have required uniformity as a result of experience with such confusion. Staff recommends the following uniform offerings:

<u>MEASURE</u>	<u>ELIGIBILITY</u>	<u>REBATE</u>
Central Air Conditioning	SEER $\geq$ 15 EER $\geq$ 12.5 Plus "Quality Installation"	\$400
Central Air Conditioning	SEER $\geq$ 16 EER $\geq$ 13.0 Plus "Quality Installation"	\$600
Central Air Source Heat Pump	SEER $\geq$ 15 EER $\geq$ 12 HSPF $\geq$ 8.5 Plus "Quality Installation"	\$400
Central Air Source Heat Pump	SEER $\geq$ 16 EER $\geq$ 13.0 HSPF $\geq$ 9.0 Plus "Quality Installation"	\$600
Duct and Air Sealing	Blower Door and Duct Blaster assisted sealing by certified contractors	\$600
ECM Furnace Fan	Electronically Controlled Motor (ECM) Fan	\$200
Electric Heat Pump Water Heater	Energy Factor > 2.0	\$400
Energy Star Thermostats	Energy Star	\$25

SEER – Seasonal Energy Efficiency Ratio

EER – Energy Efficiency Ratio

HSPF – Heating Season Performance Factor

Quality Installation - Installation by a BPI-certified contractor and documentation that an ACCA Manual J calculation has been completed to determine the proper size of the installed central air conditioning equipment makes the contractor eligible for an incremental financial inducement of \$200.

Staff's recommendations are based on considerations of uniformity, achieving Energy Star or better standards, using whole-number SEER levels to maximize the eligibility of available equipment, use of EER as a criterion to maximize peak savings, use of "quality" installation standards to increase the energy savings, use of HSPF where appropriate to factor in heating season savings, packaging services to maximize efficiencies, and gearing the rebate levels to compliment federal tax incentives. Staff recommends that deviations only be allowed where there is compelling rationale for an exception after considering potential trade ally and customer confusion. Staff states that its recommended levels are generally based on paying 70% of expected average measure cost.

For the Small Business Program, Staff recommends that most of the differences among the utilities regarding eligible energy efficiency measures and rebates are acceptable, except for Niagara Mohawk's proposal to deviate from the general 70%/30% split between utility costs and customer costs. According to Staff, Niagara Mohawk's proposal to instead use an 80%/20% split was not sufficiently justified. Staff argues that unlike the residential programs, the Small Business Program is more likely to be custom-tailored to individual participants and less likely to lead to market confusion as customers will be learning about the program more directly from the utility. In addition, Staff recommends that each utility establish a nominal customer energy audit fee of \$50 to deter frivolous energy audits that might occur if the audits were free to the customer, but that the utilities later apply the fee toward the 30% customer share of the program costs.

To implement the changes recommended by Staff and those ultimately approved by the Commission, Staff recommends that each utility should be required to submit an energy

efficiency program implementation plan within 60 days of Commission approval of programs. Staff recommends that the plan should include the following elements:

- Overall program annual and cumulative budgets and energy savings goals;
- For both the Residential HVAC Program and the Small Business Program, include:
  - cumulative and annual budgets, energy savings, and customer participation goals;
  - annual budgets by spending category including descriptions of expenditures within each category (budget category definitions to be provided by Staff);
  - descriptions of roles and responsibilities of the utility and all contractors participating in the program;
  - contractor training and program orientation plan;
  - target customer market and detailed marketing plan, including sample customer and trade ally outreach materials;
  - training for retail partners;
  - eligible measures and associated customers incentives;
  - procedures for customer enrollment;
  - contact information for customer inquiries and complaints;
  - Quality Assurance plan; and
  - coordination with other New York energy efficiency programs, including plans for how the company will avoid duplication and confusion resulting from overlapping/neighborhood programs, ensure no double counting of savings achieved, and ensuring that no more than one incentive payment is provided for an energy efficiency measure.

As to program evaluation, Staff advises that an independent consultant (TechMarket Works) has been hired to assist in the development of the comprehensive approach the Commission seeks. As a first step, Staff recommends that a technical manual the consultant has provided be used to standardize the approaches, calculations and assumptions used for estimating gross energy savings for the selected residential and small commercial energy efficiency measures. The technical manual is entitled "New York Standard Approach for Estimating Energy savings from Energy Efficiency Programs" and is dated November 17, 2008. According to Staff, the technical manual is based primarily on engineering factors, evaluation results from similar programs, and general experience. As actual data is collected on the programs, the evaluation approaches can be further refined. Staff recommends that the technical manual be used for now to facilitate estimates of energy efficiency savings, lost revenues and earned utility incentives, and that the utilities should submit revised evaluation plans addressing the technical manual within 60 days after approval of the Fast Track programs. According to Staff, it is essential that regular reporting of the achievements and evaluation results attributable to these programs be provided on a monthly, quarterly and annual basis to increase the transparency of the evaluation results. In addition, Staff recommends that the Evaluation Advisory Group (EAG) established by the Commission have input into New York's potential role in the Regional Evaluation, Measurement, and Verification (EM&V) Forum (EM&V Forum) proposed by the Northeast Energy Efficiency Partnership and that proposals to use evaluation funding for market research should also be reviewed by the EAG and be made subject to approval by the Director of the Office of Energy Efficiency and the Environment.

In a broader context, Staff recommends that only customers who pay the System Benefits Charge (SBC) that funds energy efficiency programs should be eligible to participate in the programs and receive rebates/financial inducements for installing energy efficiency measures. Staff recommends, for utility partial requirements customers, that rebates/financial inducements for installing energy efficiency measures should be established according to the proportion of their total electric service on which they make SBC payments.

Regarding sole-source procurement proposals, Staff recommends that competitive bidding should be the preferred procurement practice for all equipment purchases and service contracts for energy efficiency programs. According to Staff, a utility should be required to submit any proposal to use sole-source procurement to the Director of the Office of Energy Efficiency and the Environment for review and approval.

Finally, Staff requests that any utility proposal for changes to approved program budgets, eligible energy efficiency measures, or customer rebates should be submitted to Staff for review and comment 90 days before the proposed implementation date. According to Staff, proposals that would result in budget reallocations that represent a cumulative change of 10% or more from the total approved annual budget should be submitted for Commission approval before implementation.

#### Staff's Comments on Central Hudson's Proposals

Staff's analysis of Central Hudson's proposed Residential HVAC Program found that the program is cost-effective with a Total Resource Cost ratio of 1.44. However, given Staff's recommendation that Central Hudson adopt Staff's uniformity recommendations for eligible measures and rebate amounts, and Staff's desire to conduct further analysis, Staff recommends that Central Hudson's proposed Residential HVAC

Program not be approved at this time. Staff notes that the proposed financial inducements for Residential HVAC Program contractors and dealers for proper sizing of equipment are appropriate if they are limited to efficient central air conditioner equipment and installations, and that the company should require contractors and dealers to submit an Air Conditioning Contractors of America (ACCA) Manual J calculation to receive a rebate/financial inducement.

Staff's analysis of Central Hudson's proposed Small Business Program found that the program is cost-effective with a Total Resource Cost ratio of 2.64. Staff recommends that this result is high enough to ensure that future adjustments to measure inputs are unlikely to render the program less than cost effective. Staff also recommends that Central Hudson's Small Business Program proposal is in satisfactory compliance with the budget and goals for the program established by the Commission and should be approved with the modifications noted in Staff's general comments.

As an overall matter, Staff recommends that Central Hudson's program proposals are in satisfactory compliance with the Commission's program design requirements, but that Staff recommends requiring additional detail before it can recommend acceptance of the company's evaluation plan. Specifically, Central Hudson should provide additional detail on the evaluation methodologies, logic model, and how the administrative structure will promote a transparent and objective evaluation process. Central Hudson should apply the technical manual recommended by Staff in its general comments for determining the amount of energy savings achieved by measure and by program. Staff raises a concern that Central Hudson has not provided sufficient supporting documentation for the details

of program cost data including a breakdown of costs by function within each budget category.

Staff further recommends that information provided by Central Hudson regarding contractor training and program orientation plans, and the Quality Assurance plan, appear to be satisfactory. However, Staff sees major weaknesses due to Central Hudson's lack of sufficient plans for coordination in marketing and program delivery with other utilities and NYSERDA. According to Staff, the proposed marketing plan appears reasonable except that it does not address coordination with other parties. Staff recommends that the company also explain in an implementation plan how it will coordinate program delivery with other entities to make customers aware of all programs for which they are eligible and to avoid double-counting of energy savings achieved and dual incentive payments to customers from its program and NYSERDA's program for the same energy efficiency measures.

Staff's Comments on Con Edison's Proposals

Staff's analysis of Con Edison's proposed Residential HVAC Program found that the program is cost-effective with a Total Resource Cost ratio of 2.14. However, given Staff's recommendation that Con Edison adopt Staff's uniformity recommendations for eligible measures and rebate amounts, and Staff's desire to conduct further analysis, particularly as to expected kWh savings, Staff recommends that Con Edison's proposed Residential HVAC Program not be approved at this time. In addition, Con Edison should not market the Residential HVAC Program jointly with its proposed Residential Gas Equipment program in Case 08-G-1008, but should market it separately to avoid customer and contractor confusion.

Staff's analysis of Con Edison's proposed Small Business Program found that the program is cost-effective with a

Total Resource Cost ratio of 1.79. Staff recommends that this result is high enough to ensure that future adjustments to measure inputs are unlikely to render the program less than cost effective. Staff recommends that the Small Business Program be approved, but the company should limit the number of free measures provided to participants in the Small Business Program to a cost of \$50 per customer.

Staff also recommends that Con Edison's proposed program budgets, energy savings, and proposed design for both programs are in satisfactory compliance with the proposed design established by the Commission, subject to the modifications recommended by Staff in its general comments.

Staff recommends requiring additional detail before it can recommend acceptance of Con Edison's evaluation plan. Specifically, the company should provide additional detail on the evaluation methodologies, logic model, and how the administrative structure will promote a transparent and objective evaluation process. Staff recommends application of the technical manual described above. According to Staff, Con Edison did not provide enough specific information to evaluate the adequacy of its plan for training program contractors, and it did not provide for a contractor orientation program in its filing. Staff recommends that a detailed contractor training and program orientation plan be submitted as part of a program implementation plan discussed. Staff advises that Con Edison's proposed quality assurance plan is generally adequate except that the process for remediation for identified problems with measure installations should be described.

Finally, Staff recommends that Con Edison's proposed plans for program marketing and operational coordination with other utilities and NYSERDA appear adequate, but the details of the plans should be described in a program implementation plan.

Staff's Comments on O&R's Proposals

Staff's analysis of O&R's proposed Residential HVAC Program found that the program is not cost-effective with a Total Resource Cost ratio of 0.66. Staff recommends that O&R's proposed Residential HVAC Program not be approved at this time pending further Staff analysis of the program's cost-effectiveness.

Staff's analysis of O&R's proposed Small Business Program found that the program is cost-effective with a Total Resource Cost ratio of 1.50. While Staff recommends that this result is high enough to ensure that future adjustments to measure inputs are unlikely to render the program less than cost effective, Staff recommends that the Small Business Program as proposed should be rejected because it is too costly. According to Staff, O&R should be allowed proceed with the Small Business Program only if it accepts the budget and energy savings goal originally targeted by the Commission.

Staff recommends that O&R's program proposals are in satisfactory compliance with the Commission's program design requirements, but Staff cautions that O&R has not provided sufficient information in several program areas, including the basis for estimated energy savings by energy efficiency measure and program; program cost data including a breakdown of costs by function within each budget category; contractor training and program orientation plan by program; quality assurance plan by program; program marketing plans including coordination with other entities administering energy efficiency programs; and description of operational coordination of its energy efficiency programs with NYSERDA's programs, including procedures for avoiding double counting of energy savings achieved and double payment of customer incentives for installing the same measures.

Staff recommends that the necessary information should be provided by O&R in an implementation plan.

As to O&R's evaluation plan, Staff recommends requiring additional detail before it can recommend acceptance of the company's evaluation plan. Specifically, O&R should provide additional detail on the evaluation methodologies, logic model, and how the administrative structure will promote a transparent and objective evaluation process. Staff also recommends that O&R be required to apply the technical manual recommended by Staff in its general comments.

Staff's Comments on Niagara Mohawk's Proposals

Staff's analysis of Niagara Mohawk's proposed Residential HVAC Program found that the program is not cost-effective with a Total Resource Cost ratio of 0.63. Staff recommends that Niagara Mohawk's proposed Residential HVAC Program not be approved at this time pending further Staff analysis of the program's cost-effectiveness. Staff opines that perhaps the program's cost effectiveness would improve if rebates were restricted to higher efficiency equipment and/or if costs could be lowered.

Staff's analysis of Niagara Mohawk's proposed Small Business Program found that the program is cost-effective with a Total Resource Cost ratio of 1.41. While Staff recommends that this result is high enough to ensure that future adjustments to measure inputs are unlikely to render the program less than cost effective, Staff recommends that the Small Business Program as proposed should be rejected because the company has not demonstrated that it is unable to achieve the savings that were expected by the Commission within the allowed budget. According to Staff, Niagara Mohawk should be allowed proceed with the Small Business Program only if it accepts the budget and energy savings goal originally targeted by the Commission.

Staff recommends that Niagara Mohawk's program proposals are in satisfactory compliance with the Commission's program design requirements except for the company's proposed measure cost-sharing between the utility and customers participating the in the Small Business Program. Staff recommends that Niagara Mohawk modify the program to conform to the other utility programs at a 70%/30% utility/customer split. Staff notes that the proposed financial inducements for Residential HVAC Program contractors and dealers for proper sizing of equipment are appropriate if they are limited to efficient central air conditioner equipment and installations, and that the company should require contractors and dealers to submit an Air Conditioning Contractors of America (ACCA) Manual J calculation to receive a rebate/financial inducement. Staff recommends that Niagara Mohawk should provide, in a program implementation plan, more details on program cost data including a breakdown of costs by function within each budget category; coordination of program marketing with other utilities and NYSERDA; and operational coordination of its energy efficiency programs with those of NYSERDA.

As to Niagara Mohawk's evaluation plan, Staff recommends requiring additional detail before it can recommend acceptance of the company's evaluation plan. Specifically, Niagara Mohawk should provide additional detail on the evaluation methodologies, logic model, and how the administrative structure will promote a transparent and objective evaluation process. Staff also recommends that Niagara Mohawk be required to apply the technical manual recommended by Staff in its general comments.

Finally, Staff further recommends that Niagara Mohawk's quality assurance program for the Residential HVAC Program should be modified to include provisions to ensure that

equipment installed under the program is correctly sized and properly installed to provide the expected level of savings. The quality assurance plan for both programs should include provisions for remediation of any problems that are found during inspections.

Central Hudson's Reply Comments

Central Hudson states that in its filing it has addressed all of the criteria articulated by the Commission in the June 23, 2008 order in Case 07-M-0548 (the "EEPS Order"), and that the criteria and forecast prices for fuel and capacity underlying the Long Run Avoided Costs (LRACs) used in the EEPS Order should be used to evaluate Central Hudson's filing. According to Central Hudson, the use of different criteria and forecast price streams by Staff makes it infeasible for Staff to determine compliance with the EEPS Order. Central Hudson believes that Staff's review is of a different character than contemplated by the EEPS Order and is not flexible or relatively high-level which was intended so as to allow the "Fast Track" programs to be implemented quickly. Central Hudson argues that Staff's approach also calls for more highly-detailed plans as pre-conditions for approval than were contemplated. Central Hudson also argues that Staff's seeking to impose standardizations across utilities for the Residential HVAC Program eliminates the concept of individualized utility submissions recognized in the EEPS Order. Central Hudson warns that if Staff's new forecasts are correct and to be used, since they are so different than the original forecasts and will lead to significantly different results, the EEPS Order should be reevaluated to determine if the 15x15 goals and the specific utility targets remain desirable.

Central Hudson points out that there are significant market differences within utility service territories, as well

as across the State, such that large urban, small urban, suburban and rural areas have different housing stocks, economic, retail and commercial characteristics such that "one size" programs do not fit many, and certainly not all. The company believes that Staff's expanded criteria seem intended to prevent consideration of the needs of the individual utility service territories. Central Hudson notes that at the present time there is no empirical data from across the State to show that the uniformities Staff seeks are desirable. The company argues that generic program design carries a risk that valuable programs not included will never be tested whereas allowing utilities to offer individualized programs would allow experience to be gained with the market's response to a broader range of programs. Regarding coordination, Central Hudson notes that its statements in that regard are just as detailed as those made by NYSERDA.

Central Hudson also argues that the potential for customer or contractor confusion is exaggerated by Staff. As to customers, the company notes that customers are subject to a variety of prices and offerings in many contexts every day. As to contractors, Central Hudson notes that Staff's concerns only matter if a contractor actually works in more than one service territory, which the Company believes would only be true for regional or statewide contractors. According to Central Hudson, such larger contractors would presumably have the capability to learn the differences just as they presumably would have the capacity for serving extended geographic areas. Central Hudson believes that most contractors will be smaller, local contractors, who tend to work in areas they already know with the utility they already know. Central Hudson believes that the Commission should not give undue solicitude for the desires of the largest contractors when the vast share of energy savings

will be enabled by smaller contractors. Central Hudson also opposes NYSERDA's suggestion that NYSERDA's "trade allies" be preferred over training other contractors. Central Hudson has its own trade allies which it believes are more familiar with Central Hudson and its territory so there is no functional reason for a mandate as proposed by NYSERDA. In a similar vein, Central Hudson notes that it intends to have contractors submit ACCA Manual J calculations to receive a rebate/financial inducement. Central Hudson believes that the place for uniformity is in the reporting of results, in analyses of performance and in public reporting. In that regard, Central Hudson counters that NYSERDA's concerns with "layering" and "attribution" are best addressed through a rigorous system of data collection, analysis and reporting that is applied equivalently to the utilities and NYSERDA.

As to the use of revised, reduced LRACs, Central Hudson argues that if they are correct and to be used, the company's savings targets should be reduced as well. The company also raises a concern about the reasonableness of it possibly being held accountable for failure to achieve a 70% performance factor where standardized programs that restrict a utility's operational flexibility are imposed. Central Hudson warns that its forecasts assume full participation in its programs but that in its view such forecasts are not forecasts by Central Hudson that the programs would actually produce the savings estimated or that the markets would permit the company to deliver what is assumed. Given the review period currently underway, Central Hudson notes that the time period available to attain the savings is no longer valid and a compliance extension is warranted.

As to whether Central Hudson's energy efficiency expenditures will be incremental as to what is in rates, the

Company notes that in its last rate case there was no allowance for any such expenditures, so in the company's view all such expenditures will be incremental.

As to evaluation costs, Central Hudson explains that its proposal to spend roughly 10% of total programs cost is justified by the Company's small programs size resulting in the fixed costs of evaluation having a higher overall percentage. In reply to suggestions that there be participation in the EM&V Forum proposed by the Northeast Energy Efficiency Partnership, Central Hudson urges that any costs not be deducted from its evaluation budget but instead be funded from other SBC funds.

Con Edison's Reply Comments

Con Edison believes that Staff's new proposals, new evaluation criteria, and some of Staff's recommendations, will negatively affect the development of the long term, cost-effective, innovative energy efficiency policy and programs sought by the Commission.

As to Staff's proposal that the Residential HVAC Program conform to uniform measures and rebates/financial inducements, Con Edison believes the proposal contradicts Commission recognition of the uniqueness of individual utility service areas and the need to tailor programs to local needs. Con Edison cites the 23% higher level of wages for HVAC installers in New York City and findings in NYSERDA's last annual SBC Program report as indicia that New York City area customers have different motivations for participating in energy efficiency and demand response programs than customers in the rest of the State. Con Edison also notes the Commission's approval of a unique System-wide Demand Reduction Program (SWP) in Case 04-E-0572 and a 25% higher cost than NYSERDA statewide programs as recognition by the Commission of a higher cost of doing business in the New York City area. Notwithstanding its

objections to uniformity, Con Edison does support a statewide \$100 financial inducement for submitting ACCA Manual J calculations and consistent training for contractors across the utilities' respective service territories.

Con Edison takes exception to Staff's claims, particularly where Con Edison's electric service territory overlaps the gas service territory of other utilities, that combining the marketing of electric and gas programs would be impractical, inefficient or would cause customer confusion. Con Edison believes its customers have the sophistication to understand and manage programs offered in coordination by two utilities. Con Edison cites a "best practices" study and activities in California and other states for the proposition that the better trend in program design is to provide for such joint marketing. Con Edison believes the combined electric and gas approach is particularly suited to downstate with its high preponderance of hydronic heating systems or boilers and the custom of major manufactures carrying a spectrum of products to move them through HVAC plumbers or contractors.

As to the use of revised, reduced LRACs, Con Edison notes that it used Staff's March 2008 estimates that reflected avoided transmission and distribution (T&D) costs of \$110/kW-yr for New York City and \$55/kW-yr for Westchester. Con Edison believes Staff's March 2008 estimates were conservative in relation to the company's \$608.86 kW-yr estimate filed in Con Edison's 2007 electric rate case (Case 07-E-0523). Con Edison notes that Staff is now using an October 2008 estimate based on the company's Rider U - Distribution Load Relief Program that is about 80% lower than Staff's March 2008 estimates. Con Edison believes that the use of Rider U figures is inappropriate as they were developed to avoid emergency demand response for very short periods of time and are not used to plan T&D

infrastructure needs. Con Edison also questions Staff's reducing the energy and capacity costs by about 10% to reflect current fuel prices because such updates create a volatility in the LRACs which practice could lead to bias of selecting estimates to achieve a desired result. Con Edison recommends using a fixed forecast for program design and evaluation in a given year and regular annual updates to reset targets and evaluate programs going forward.

Con Edison opposes many of the detailed oversight proposal made by Staff as limiting the flexibility of program administrators to respond to changing market conditions and to run the programs as they see fit. The Company opposes the proposal that it submit changes to Staff for review and comment 90 days in advance as unnecessary and burdensome. Similarly, Con Edison had proposed that in its discretion it be allowed to shift funds between programs by up to 40% and the Company opposes Staff's proposal that funding shifts over 10% require Commission approval. Con Edison believes that requirement would impose unreasonable delay in the face of unanticipated changes. In addition, the company intends to design accounts to track its energy efficiency activities to keep them identifiable. Con Edison also opposes the additional requirement of monthly "scorecard" reporting. The company does not expect large month-to-month changes that would warrant such reporting. As to sole-source procurement, Con Edison believes Staff incorrectly stated Con Edison's position and notes that while the company intends that such procurements "may" be used, Staff's proposal that sole-source procurements be approved by the Director of the Office of Energy Efficiency and the Environment would defeat the benefits of being able to act quickly on sole-source procurements. Con Edison proposes to give notice instead.

Con Edison opposes imposition of a \$50 audit fee for the Small Business Program because it will only act as another barrier to entry for a customer segment that is already difficult to reach. Con Edison believes that the implementation of simple free measures at the time of the audit and the creation of good will offsets any concern about wasted audit dollars. Con Edison also opposes a \$50 limit on free direct install measures to small business customers. While it anticipates that the weighted average cost of such measures will be only \$45, the company believes that the low limit will only serve to limit the program's success. Con Edison suggests a \$200 limit on cost-effective measures if a limit is deemed necessary.

As to Staff's proposal that rebates/financial inducements be apportioned proportionally to customers that pay an SBC charge on only a portion of their usage, Con Edison believes that implementation of such a proposal would lead to unwarranted complexity in tracking and provide no material benefit given that the 15x15 goal is broad and system-wide.

Con Edison states that it is committed to filing implementation plans. However, it is not reasonable for it to develop such plans in the detail desired by Staff until the efficiency programs to which the plans relate is approved. In addition, Con Edison believes it would be appropriate to work with outside vendors in the development of such plans.

As to Con Edison's 10% "free ridership and spillover" assumption, Con Edison explains that the level chosen is a proxy that can't be set with certainty until there is actual experience and evaluation. Con Edison further explains that its "market research" activities referenced in conjunction with "evaluation" are functions which support evaluation activities and are independent of program marketing costs. Con Edison

believes that Staff's concerns in this regard are misplaced and no approval of the Director of the Office of Energy Efficiency and the Environment should be required for expenditures that are part of the normal course of business and are consistent with whatever evaluation protocol is set. In reply to suggestions that there be participation in the EM&V Forum proposed by the Northeast Energy Efficiency Partnership, Con Edison cautions that multi-state studies not ignore unique characteristics of the Con Edison service territory and urges that any costs be weighed against the benefits of economies of scale. Con Edison also notes that its program development personnel will not be involved with evaluation activities.

Con Edison notes that program differences under contemplation by the Commission and the passage of time may warrant adjustments to the program ramp-up rates and targets. The company also notes that it will be doing some coordination with O&R, but that whether the companies will issue a joint Request for Proposals (RFP) for contractor services remains under review.

As to Staff's proffered program evaluation technical manual, while Con Edison's initial review finds only slight variance from Con Edison's own technical assumptions, the company requests that the technical manual be considered preliminary and not be used pending more rigorous analysis by experts.

#### O&R's Reply Comments

O&R also believes that Staff's new proposals, new evaluation criteria, and some of Staff's recommendations, will negatively affect the development of the long term, cost-effective, innovative energy efficiency policy and programs sought by the Commission.

O&R argues that the funding allocated to the Company for its "Fast track" programs combined with the restrictions on the type of programs that could be implemented precludes O&R from meeting the MWh targets of the EEPS Order for those programs. O&R proposes to meet the MWh targets by expanding the funding and scope of the programs. O&R's approach is based on the findings of a July 2008 Market Potential Study prepared for O&R by a consultant, Optimal Energy. For the Residential HVAC Program, O&R believes that since central air conditioning saturation is below 40% in its service territory, the costs and offerings of the program would have to be expanded for the targets to be achieved. For the Small Business program, O&R believes that the actual cost per MWh exceeds the funding levels provided.

As to the use of revised, reduced LRACs, O&R believes that Staff's cost benefit analysis is inaccurate. The company believes that its service territory specific avoided costs are more accurate than Staff's upstate/downstate approach. For example, O&R provides a detailed attachment to support its \$76.49/kW-yr for avoided transmission and distribution (T&D) costs to compare to Staff's contrary "no such savings at this time" conclusion. According to O&R, Staff's desire to change the basis of the avoided costs estimates, with no support for utilizing estimates that are not specific to the company's service territory, will only serve to delay implementation of the "fast track" programs.

As to O&R's 5% "free ridership and spillover" assumption, O&R explains that the level chosen is a proxy that can't be set with certainty until there is actual experience and evaluation. O&R believes Staff's proposal to raise the rate to 10% is unwarranted and that in times of adverse economic conditions, such as now, free ridership rates are typically

lower because customers are less likely to install measures without the availability of incentives.

Finally, O&R makes other arguments similar to Con Edison and already summarized above.

Niagara Mohawk's Reply Comments

Niagara Mohawk states that it is dismayed and disheartened that at this juncture, the ability to proceed with the delivery of expedited "Fast Track" electric energy efficiency programs, as approved in principle in the EEPS Order, is in jeopardy due to the new ground rules now being recommended by Staff. Further, any delay in implementing the two expedited programs by utilities is counter to advancing the 15x15 goal.

As to the Residential HVAC Program, Niagara Mohawk notes that the number of cooling degree days and the corresponding humidity in upstate New York is somewhat lower than in other service territories, resulting in relatively less anticipated savings. As to Staff's suggestion that the company's program could be made more cost-effective if rebates were restricted to SEER levels of 15 or 16 and/or if program costs could be lowered, Niagara Mohawk advises that its affiliates operate a more comprehensive central air conditioning program in Massachusetts and Rhode Island called "Cool Smart" that it could undertake and achieve additional energy savings and an approved TRC ratio. The company says that it is currently evaluating such a program modification. Niagara Mohawk states that it did not initially propose such a program for upstate New York because NYSERDA as well as others suggested the use of a program focused on BPI-certified contractors. The company is willing to offer a \$100 financial inducement directly to contractors and dealers to submit an ACCA Manual J calculation, but does not recommend it for the first tier of offerings because Niagara Mohawk believes it is important to

first motivate contractor participation in the program, and then to introduce more advanced installation requirements. The company opposes Staff's efforts at statewide uniformity for the design and implementation of the Residential HVAC Program for the reasons stated by the other utilities and because such an approach will eliminate any opportunity to compare and contrast individual program attributes which may lead to improved program design in the longer term, but is willing to review options for a common statewide program. In regard to recommendations that utilities offer financial inducements for electric heat pump water heaters, Niagara Mohawk warns of affiliate experience in other states finding a high degree of failure and lower savings than projected. The company suggests waiting until this equipment has been commercially available in the market place for at least one year.

As to the Small Business Program, Niagara Mohawk notes that its proposal has been informed by actual evaluated results of a similar program implemented by its affiliate in Massachusetts. The company believes that its proposed 20% customer cost share would be more effective in overcoming barriers to participation and more quickly acquiring savings than Staff's proposed 30% customer cost share, but is willing to modify its proposal. Niagara Mohawk planned to increase the customer share to 30% if experience proved the smaller share was not necessary to motivate customers. National Grid does not support Staff's recommendation that each utility impose a \$50 fee for energy audits because it would increase barriers to participation as customers are likely reluctant to invest in an audit fee when they are uncertain or not sufficiently knowledgeable as to the expected benefits from the installation of energy efficiency improvements. This is exacerbated by declining economic conditions. The company suggests that

vendors will pre-screen potential participants to weed out non-serious customers because the vendors know that they will not get paid if the customer ultimately does not install any measures.

As to Staff's comments on Niagara Mohawk's evaluation plans, the company describes year-end evaluation activities that it intends to undertake each year and states that it intends to hire an evaluation consultant to support planned evaluation efforts after the Commission has approved the energy efficiency programs. Niagara Mohawk also intends to coordinate its activities with the Evaluation Advisory Group. As to calculating "free-rider", "spillover" and "snapback" rates, the company proposes a survey methodology conducted every two years and a billing data analysis. Niagara Mohawk also plans to coordinate with other utilities on the development of consistent training for contractors.

Regarding the calculation of avoided costs, Niagara Mohawk characterizes Staff's new approach as a midstream replacement without corresponding documentation as compared to Niagara Mohawk's well-supported avoided costs study. The company raises a concern that the introduction of revised figures, if appropriate, calls into question the validity of the EEPS Order targets. National Grid suggests that Staff's avoided costs from March 2008 which formed the basis of the EEPS Order targets should remain the basis for evaluation of the company's proposal. Going forward, Niagara Mohawk suggests the Evaluation Advisory Group could possibly undertake a statewide avoided cost study that would address NYISO zonal differences.

As to sole-source procurement, Niagara Mohawk believes its own internal control procedures are sufficient and that Staff's proposal that sole-source procurements be approved by the Director of the Office of Energy Efficiency and the

Environment would undermine any sense of urgency that was the basis for the sole-source procurement.

As to Staff's proposal that rebates/financial inducements be apportioned proportionally to customers that pay an SBC charge on only a portion of their usage, Niagara Mohawk argues like Con Edison that implementation of such a proposal would lead to undue complexity in program implementation, administration, and tracking efforts and the incremental effort and resulting costs would effectively diminish the value of the program services to these customers.

Niagara Mohawk objects to Staff's proposal that market research expenditures be approved by the Director of the Office of Energy Efficiency and the Environment. The company explains that "market research" is a key element of program evaluation such that, for example, process evaluations often include customer surveys.

As to Staff's implementation plan proposal, Niagara Mohawk notes that much of the information requested has already been provided. Niagara Mohawk accepts Staff's proposals that it submit changes to Staff for review and comment 90 days in advance, and that funding shifts over 10% require Commission approval. Niagara Mohawk opposes the additional requirement of monthly "scorecard" reporting. The company believes that quarterly and annual reports are sufficient and that month reports would be excessive and merely increase administration expenses.

As to Staff's proffered program evaluation technical manual, Niagara Mohawk views it as a potentially valuable contribution, but notes that there has been insufficient time to review it and a cursory review indicates that some of the approaches contained therein may be a significant departure from the way the company has designed its programs. Niagara Mohawk

seeks a forum before the Evaluation Advisory Group for parties to develop a common understanding. As to participation in the EM&V Forum proposed by the Northeast Energy Efficiency Partnership, Niagara Mohawk recommends that New York become an active participant when it will be more cost-efficient.

Regarding NYSERDA's comments, Niagara Mohawk offers to work together to offer shared mechanisms so customers receive appropriate inducements for comprehensive, whole-house work. The company also supports the recommendation that the Evaluation Advisory Group establish a central data repository and is willing to work with NYSERDA to develop a common understanding of avoided costs and other components of the benefit cost analysis. However, Niagara Mohawk does not agree that HVAC inducements should be given to the customer instead of the contractor. Niagara Mohawk believes that giving the inducements directly to the contractor will assure that the contractors do a good job on installation. It notes that upstate New York is different in that regard as there is less local licensing of contractors. Niagara Mohawk points to the experience of affiliates in New England that have used this tool effectively to encourage contractor behavior and market transformation.

Finally, like the other utilities, Niagara Mohawk notes that the continuing review process may warrant adjustments to the program ramp-up rates and targets.

#### DISCUSSION

##### Long Run Avoided Costs (LRACs)

Estimates of Long Run Avoided Costs (LRACs) figure into the benefit side of the Total Resource Cost (TRC) test we use as the benefit/cost test part of our evaluation of energy efficiency program proposals. When we adopted the June 23, 2008 "EEPS Order", our invitation to utilities to propose expedited

"Fast Track" programs was predicated on a certain set of LRAC assumptions. In their filings, the utilities relied on those assumptions, or made their own. In evaluating the filings, Trial Staff urges us to alter those assumptions which would result in a significantly lower estimate of LRACs. The utilities make good arguments as to why changing the LRAC assumptions at this juncture makes it difficult for planners to design and implement programs around what is essentially a moving target. On the other hand, if the original LRAC assumptions are no longer valid, their utility as an evaluation tool is questionable. After examining the various estimates, our Advisory Staff has given us recommendations as to what LRAC estimates to use. We shall adopt those LRAC estimates and incorporate them into our analysis of the expedited "Fast Track" programs. In response to concerns about a moving target, it is our intention to continue to use these particular LRAC estimates to evaluate all energy efficiency proposals currently pending before us in these and other proceedings. So that parties may better understand and be prepared for the use of these LRAC estimates, we have attached in Appendix 2 to this order in tabular form the key price forecasts used. Other parties should share their forecasts as well, perhaps in an Evaluation Advisory Group central data repository as proposed by NYSERDA. The LRACs we adopt here are significantly higher than those urged by Trial Staff, and result in values that are not much different from the LRAC values we used for the EEPS Order. However, the disaggregating of the estimates by region of the State, which we adopt here, does have the effect of raising the New York City estimates and lowering the upstate estimates, when compared to the single statewide estimate that was used in June, 2008.

The marginal energy costs we shall use rely on recent actual price data and the use of Multi Area Production

Simulation (MAPS) software to project future escalation rates. The resulting forecast annual average numbers were used to create prices for annual sub-periods based on the proportions reflected in recent actual price data. The fuel prices assumed use October 6, 2008 gas prices from NYSERDA/ICF. The net demand (i.e., energy requirements) for the forecast escalation rate assume a reduction in energy requirements due to conservation for jurisdictional utilities only at the rate of programs that have already been approved by the Commission.

The marginal generation capacity costs we shall use rely on forecasts of load requirements and supply capacity, along with approved demand curve parameters, NYISO reserve margin rules and excess purchase requirements to predict future capacity prices. The load requirements used assumes the same reduction in energy requirements due to conservation described above. A future "need" year; that is, the future year in which load growth would cause expected supply reserve requirements to fall below minimum requirements, is estimated separately for the New York City and Rest-of-State UCAP markets. For the need year, and beyond, it is assumed that the prices for generation capacity would reflect the full capital costs of a new peaking generator. For 2008, the forecast is based on the most recent actual prices. Finally, for the years between 2008 and the respective need year, prices are interpolated between the two price levels. For Rest-of-State prices, a constant linear growth rate is used. New York City prices reflect the impact of changing supply and demand (load growth) on the clearing prices under the approved demand curve. Resultant estimated UCAP prices are increased to reflect the reserves and demand curve "excess purchases" that conservation would avoid. Both the energy and generation capacity price forecasts are at the wholesale/transmission level. To value savings at the customer

meter, they are increased to reflect the losses that would be incurred (and thus avoided) when wholesale energy and capacity are delivered to the customer.

The marginal transmission costs we shall rely on are included in the energy price forecasts. The energy price forecasts differ by location, in response to the forecast transmission constraints throughout the system. The location-based marginal pricing (LBMP) system of the NYISO is designed such that the spatial price differences reflect the value of an extra MW of transmission, for a given hour, at the margin. Thus, the LBMP forecasts include a best estimate of marginal transmission costs.

Avoided distribution capacity costs are the subset of electric marginal costs that continue to be the most difficult to reliably estimate. Standard engineering practice calls for new distribution systems to be sized not simply large enough to meet expected future load growth, but intentionally oversized even beyond that, so as to minimize the probability that a costly future rebuild will be required. This means that for many parts of the distribution system, virtually no cost savings are associated with reduced usage. This approach is applicable to radial systems which are common upstate, but less so to the network systems that predominate in New York City. Furthermore, for upstate, an avoided cost value somewhat above zero should be used in recognition that a number of old radial distribution circuits, upstate, though oversized when they were built, are now being stressed by levels of usage per home that have greatly exceeded expectations. For upstate, we shall use an avoided distribution capacity cost of \$33.48 per kw-year. This consists of a \$23.48 per kw-year value for distribution substations (including trunk line feeders) and a value of \$10 per kw-year for the downstream parts of distribution (primary lines,

secondary lines, and distribution transformers). The substation number is taken from RG&E's 2002 rate case, escalated by a utility distribution cost inflator to 2008 dollars. The \$10 value is a placeholder that is to be used until a better number emerges from future studies of the relationship between incremental reductions in load and distribution costs. The \$10 value is judgmental, and reflects a balancing of the invalidity of using a pure zero number with the recognition of the principle that the costs avoidable in radial distribution systems are far less than the full per-kw costs of installing distribution systems anew. For New York City, we shall use an avoided distribution capacity cost of \$100 per kw-year. Even though the engineering principle of intentionally oversizing distribution systems is practiced in the network distribution systems that are present in New York City, it has less of an impact in driving avoided costs toward zero when applied to networks. A number of numerical avoided cost values have been produced in recent years by Con Edison for distribution costs ranging from \$22 per kw-year to \$307, \$549 and even \$609 per kw-year. Marginal distribution costs are notoriously difficult to estimate, as is evidenced by the wide range in the New York City numbers above. Unlike upstate, New York City's avoided distribution capacity costs are substantial, and are in no way near zero. On the other hand, the values of \$307, \$549 and \$609 are so dramatically higher than those that have been reported in the past that we are reluctant to use them without further inquiry. A value of \$100 per kw-year is selected for use in this case as a placeholder until greater confidence is gained in studies that produce higher, or lower, numbers. \$100 is substantial enough, however, to provide a significant boost to the benefit/cost ratios of energy efficiency measures to reflect the real, and significant, benefit of such measures in reducing

the distribution costs that Con Edison incurs to meet load growth in New York City.

Technical Manual

The proposal to use the so-called "Technical Manual" to standardize energy savings estimation approaches, calculations and assumptions at the measure level for estimating "Fast Track" program energy savings is approved. The main objection to the proposal is that the parties have not had much time to perform a rigorous analysis of the technical assumptions in the manual or to participate in its preparation. The parties did have a brief opportunity to comment on the manual, and it has been revised to reflect those comments. It appears that in application the Technical Manual may result in more conservative savings estimates than those put forth by the utilities. That gives us some comfort. In addition, we need some ruler by which to measure the programs and in our view that need outweighs any of the arguments made in opposition. We invite parties to return to us in the future with potential refinements to the Technical Manual for our consideration that may result from the collaborative processes of the Evaluation Advisory Group.

Benefit/Cost Results

Applying the revised LRACs and the Technical Manual described above (and other program modifications described below) to the program proposals yields in our view the following benefit/cost results:

				<u>Central Hudson</u>		
				<u>B/C Ratio without Performance Incentives</u>	<u>B/C Ratio with Performance Incentives</u>	<u>B/C Ratio with Performance Incentives &amp; Carbon Adder</u>
<u>Residential HVAC Program</u>				1.0	1.0	1.0
MWh Savings	2,001					
Total Budget	\$2,330,305					
\$\$/MWh	\$1,165					
<u>Small Business Program</u>				3.4	3.1	3.2
MWh Savings	45,360					
Total Budget	\$12,370,030					
\$\$/MWh	\$273					
				<u>Con Edison</u>		
				<u>B/C Ratio without Performance Incentives</u>	<u>B/C Ratio with Performance Incentives</u>	<u>B/C Ratio with Performance Incentives &amp; Carbon Adder</u>
<u>Residential HVAC Program</u>				1.1	1.0	1.1
MWh Savings	7,086					
Total Budget	\$11,128,323					
\$\$/MWh	\$1,570					
<u>Small Business Program</u>				2.3	2.1	2.2
MWh Savings	289,875					
Total Budget	\$76,702,688					
\$\$/MWh	\$265					

	<u>O&amp;R</u>		
	<u>B/C Ratio without Performance Incentives</u>	<u>B/C Ratio with Performance Incentives</u>	<u>B/C Ratio with Performance Incentives &amp; Carbon Adder</u>
<b><u>Residential HVAC Program</u></b>			
w/Con Edison Assumptions	0.7	0.7	0.7
MWh Savings	839.5		
Total Budget	\$1,318,412		
\$\$/MWh	\$1,570		
<b><u>Small Business Program</u></b>			
w/Con Edison Assumptions	1.9	1.7	1.8
MWh Savings	34,345		
Total Budget	\$9,087,821		
\$\$/MWh	\$265		
<b><u>Niagara Mohawk</u></b>			
	<u>B/C Ratio without Performance Incentives</u>	<u>B/C Ratio with Performance Incentives</u>	<u>B/C Ratio with Performance Incentives &amp; Carbon Adder</u>
<b><u>Residential HVAC Program</u></b>			
	1.0	1.0	1.0
MWh Savings	542		
Total Budget	\$2,113,650		
\$\$/MWh	\$3,900		
<b><u>Small Business Program</u></b>			
	2.0	1.8	1.9
MWh Savings	252,641		
Total Budget	\$67,679,391		
\$\$/MWh	\$268		

Notes: Potential shareholder incentives are included in the B/C Ratios but not in the Total Budget.

Uniformity of Programs

We are not satisfied that sufficient collaboration along the lines we intended occurred between the utilities in designing their Residential HVAC Programs as evidenced by the widely divergent rebate levels and other design aspects contained in the proposals. We will chalk that up to the expedited schedule we established for preparing proposals. Going forward, we will adopt the proposal that we require uniform rebate levels and other program design features for the Residential HVAC Programs. In that regard we are adopting what appears to us to be the optimal mix of components taken from the various proposals. While we recognize that there are different demographic characteristics in each service territory, we are not persuaded that the program differences proposed correlate particularly to demographic profiles or to the degree that it would be worth experimenting with different rebate levels and measures. The utilities will offer only the energy efficiency measures, qualifying energy efficiency thresholds and corresponding customer rebates and contractor inducements for the Residential HVAC program that are set forth in Appendix 1, Table 2 attached to this order. All of the programs would be enhanced by providing a financial inducement to trained contractors to right-size HVAC equipment using the ACCA Manual J calculation for sizing equipment. It would be foolhardy to provide rebates for new efficient air conditioners if they would waste energy because they are more powerful than needed to handle the necessary cooling load. We support the correct sizing of central air conditioning units in accordance with professional engineering standards as it is more cost effective for the consumer and proper sizing can reduce the demand on the electric distribution system infrastructure. Both NYSERDA and Niagara Mohawk are seeking to encourage BPI-certified

contractors to support their energy efficiency programs, which we support. NYSERDA's concern about paying the financial inducement directly to the contractor is noted, however we do not feel sufficient information has been presented for us to conclude that the contractor payment proposed by Niagara Mohawk and other utilities will have a deleterious affect. Similarly, we agree with Central Hudson that there has been no imperative demonstrated that NYSERDA's trade allies should be preferred over local utility trade allies.

For the Small Business Program, Niagara Mohawk is the only utility that proposed using something other than 70%/30% cost sharing with participants, with the utility paying 70% of the measure cost. We appreciate and accept Niagara Mohawk's later offer to conform to the 70%/30% regime. We will not approve the proposal that utilities charge a refundable \$50 audit fee for participants to ensure against frivolous audits. While we do not want to allow frivolous audits, we are persuaded that the fee may act as an unwarranted barrier and that it is in the interest of contractors to screen out customers who would not seriously consider implementing efficiency measures so long as such screening is not applied in an unfair or discriminatory manner. We will however impose a \$100 limit on simple free measures provided at the time of the audit, so long as the measures themselves are cost-effective. That amount should be sufficient to accomplish the promotional aspects of the program without being wasteful. Utilities should track expenditures on such measures for future evaluation purposes.

#### Miscellaneous Issues

There does not appear to be a significant issue regarding potential sole-source procurements for equipment purchases and service contracts for energy efficiency programs. Utilities should follow their usual internal control procedures

that should favor competitive solicitations wherever feasible as they should for all other utility functions. Similarly, there does not appear to be a significant issue regarding the use of program evaluation funding for market research so long as the market research relates solely to the evaluation function as the utilities have assured us in their reply comments. Utilities should track expenditures on such evaluation-related market research so that they may be scrutinized in the future.

The program budgets through 2011 have been subject to sufficient scrutiny such that we do not expect deviation from what is being approved. While our expectation does not preclude future petitions for modification, the press of other energy efficiency program review militates against any such modifications being proposed unless a significant problem or opportunity develops. Similarly, the approved energy efficiency measures and customer rebates/financial inducements have been subject to sufficient scrutiny such that we do not expect deviation from what is being approved except perhaps minor refinements where we have not insisted on uniformity. We will allow utilities to make minor refinements on notice to Staff for review and comment at least 90 days before the proposed implementation date of any such proposed changes, but if Staff objects no such refinements shall be made without our approval.

It is our standing general policy that only customers who pay the SBC charge may participate in SBC-funded energy efficiency programs. The proposal that customers who pay the SBC on only a portion of their electricity use should be eligible for rebates/financial inducements that are adjusted accordingly relates primarily to customers that take a part of their requirements from the New York Power Authority. Those customers are typically large users that would not be eligible to participate in a Residential HVAC Program, or a Small

Business Program limited to loads of 100 kW or less. Therefore, this issue would be better considered in a context where the programs at stake are designed for large users and the interest of large users is engaged, so we will not act on this issue at this time.

NYSERDA has a valid concern regarding the potential implications of O&R's proposed withholding of additional previously allocated SBC resources. O&R's and all similar proposals, if any, are rejected. We will provide the utilities with all necessary and appropriate SBC funds to carry out whatever energy efficiency programs we approve at the approved budget levels.

The expedited "fast Track" programs were purposefully limited in scope in a first cut of program review delineated in the EEPS Order. The issue of whether or not to include a solar hot water technology element in an electric efficiency program can be examined in the context of the continuing broader program reviews.

NYSERDA's concern about the potential for "layering" or the double payment of rebates/financial inducements for the same measure due to overlapping utility/NYSERDA programs is legitimate. The utilities and NYSERDA must work together to develop effective administrative procedures that will identify and prevent unintended rebate/financial inducement layering in their program offerings.

#### Central Hudson's Programs

We shall accept Central Hudson's proposed Residential HVAC Program budget of \$2,330,505 and adjust its expected energy savings goal from 2,922 MWh to 2,001 MWh to reflect that a Seasonal Energy Efficiency Rating (SEER) of 13 is the minimum (replaceable) efficiency level for central air conditioning units sold today and that it is from this base that incremental

program-related energy savings will be measured. We shall accept Central Hudson's proposed Small Business Program budget of \$12,370,030 and its proposed energy savings goal of 45,360 MWh.

Con Edison's Programs

We shall accept Con Edison's proposed Residential HVAC Program budget of \$11,128,323 and adjust its expected energy savings goal from 12,461 MWh to 7,086 MWh to reflect a Seasonal Energy Efficiency Rating (SEER) of 13 is the minimum (replaceable) efficiency level for central air conditioning units sold today and that it is from this base that incremental program-related energy savings will be measured. We shall accept Con Edison's proposed Small Business Program budget of \$76,702,688 and its proposed energy savings goal of 289,875 MWh. Until such time as we have more experience with utility implementation issues, the company is directed to separately implement and administer residential electric and gas energy efficiency programs.

O&R's Programs

We reject O&R's Residential HVAC Program proposal as filed because the proposed budget and energy savings are too far at variance from the EEPS Order levels without adequate justification. The Company's proposed program does not appear to be cost effective at this time. In lieu thereof, we will direct O&R to modify its program costs and energy savings goal to match those of the program proposed by its affiliate, Con Edison, using a proportional relationship scaled based on relative company size. O&R is given a one-year authorization and directed to proceed and implement a Residential HVAC Program with a goal of 229 MWh and a program budget of \$359,567 for calendar year 2009. These figures correspond to the 2009 portion of a theoretical 2008-2011 goal of 839.5 MWh and a

budget of \$1,318,412 using the ramp-up rates we are otherwise establishing in this order. O&R is directed to file a new Residential HVAC Program proposal by April 1, 2009 for Commission approval for calendar years 2010 and 2011 which is clearly cost effective as a requirement to be able to continue to offer the program. We also reject O&R's Small Business Program proposal as filed because the proposed budget is too far at variance (85 % higher) from the EEPS Order levels without adequate justification. O&R is directed to proceed and implement a Small Business Program with a goal of 34,344 MWh and a program budget of \$9,087,821 for calendar years 2009 through 2011. The energy savings goal represents the same proportional relationship between energy savings and budget as we have approved for the company's affiliate Con Edison. O&R is also directed to submit an analysis of the costs and benefits of jointly administrating its energy efficiency programs with Con Edison as an alternative to hiring a program administration contractor or separately providing the function in-house.

Niagara Mohawk's Programs

We cannot fully accept Niagara Mohawk's Residential HVAC Program proposal as filed because the proposed budget and energy savings are too far at variance from the EEPS Order levels without adequate justification (e.g., 95% lower energy savings and 79% lower budget). Furthermore, in the company's reply comments it states it could have proposed a central air conditioner replacement program available to affiliate customers in Massachusetts and Rhode Island called the "Cool Smart Program" which emphasizes "quality installations" and would produce greater energy savings. This level of deviation from the EEPS Order's energy savings estimates is troubling. However, even with this relative infirmity, the program appears to be economic at an approximate B/C ratio of about 1.0.

Therefore, in order to avoid delay and loss of opportunities to deploy higher efficiency systems in the new construction and replacement markets during the upcoming cooling season, Niagara Mohawk is authorized and directed to proceed with program implementation. This approach recognizes the potential negative impact of missing opportunities for replacing central air conditioning systems which have service lives as long as 20 years. These long-term savings opportunities will not be available again until the end of the next life cycle. However, Niagara Mohawk is further directed to file a new Residential HVAC Program proposal by April 1, 2009 for potential Commission approval for calendar years 2010 and 2011. The revised program should significantly increase the program energy savings and cost effectiveness by employing appropriate attributes of the "Cool Smart" program offered by its New England affiliates or provide a much more well documented analysis which clearly demonstrates the appropriateness of the program savings level proposed by the company or why the amounts anticipated in the EEPS Order cannot be achieved. We shall accept Niagara Mohawk's proposed Small Business Program budget of \$67,679,391; however, reject the Company's proposed energy savings goal as being 47% less than anticipated in the EEPS Order without adequate justification and establish an energy savings goal for the program of 252,641 MWh to put it in line with the original expectation.

#### Plans and Reporting Requirements

Staff's proposals regarding plans and reports do not represent an overzealous Staff. They are responsive to our repeated demands for more details and closer scrutiny and tracking of energy efficiency activities, spending and results. Given all the modifications we find necessary, the filing of implementation plans and revised evaluation and other plans as

compliance filings is appropriate. The more informal monthly "scorecard report" is something that is also being required of NYSERDA, should not be burdensome and is important to us to further monitor progress.

Outreach and Education/Marketing Efforts

The EEPS Order required each Fast Track program proposal to include marketing and outreach components that are specific to the program. The utility filings include proposals to spend a three-year total of more than \$9.5 million on outreach and education (O&E)/marketing efforts through 2011.

In general, the company filings lack sufficient detail to give comfort that the budget levels and mix of vehicles; such as direct mail, grassroots outreach and mass media; are appropriate. The filings identify a total budget and a list of O&E/marketing vehicles, but fall short of presenting a coherent and targeted plan to support each program. For example, the filings do not include a timeline for the development, implementation and evaluation of the O&E/marketing efforts, nor any description or quantification of how the proposed budgets would be allocated among vehicles. Review of a disaggregated budget is a first step in assessing the reasonableness of utility EEPS O&E/marketing proposals. Moreover, some company marketing budgets appear to represent a disproportionate share of program costs.

Further, it would be useful if the utility filings identified any efforts to minimize overlap and/or customer confusion that may result from O&E/marketing efforts in the same or adjacent market areas. Similarly, identification of a longer-term process to ensure proper integration with O&E/marketing efforts associated with the 90-day filings, NYSERDA's O&E initiatives, and/or the statewide O&E/marketing effort that the Department of Public Service expects to commence

in 2009 would be useful. Although the companies were not asked to include this information in their program plans, we believe it is important to the overall success of the EEPS effort.

#### 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, Energy Efficiency Portfolio Standard (EEPS) "Fast Track" utility-administered electric energy efficiency programs for Central Hudson, Con Edison, O&R and Niagara Mohawk. These utilities are commended for participating on an expedited basis and undertaking efforts in furtherance of the State's energy efficiency goals.

#### The Commission orders:

1. Central Hudson Gas & Electric Corporation (Central Hudson), Consolidated Edison Company of New York, Inc. (Con

Edison), Orange and Rockland Utilities, Inc. (O&R) and Niagara Mohawk Power Corporation (Niagara Mohawk), collectively, the "Utilities", are authorized and directed to provide Energy Efficiency Portfolio Standard (EEPS) "Fast Track" utility-administered electric energy efficiency programs as modified and in the manner described in the body of this order. The "Fast Track" utility-administered electric energy efficiency programs shall consist of a Residential Energy Star electric heating, ventilation and air conditioning program (Residential HVAC Program) and a Small Business Direct Installation Program (Small Business Program). The programs may be commenced immediately but shall be in operation by April 1, 2009 at the latest.

2. O&R is given only a one-year authorization for its Residential HVAC Program as modified. O&R is directed to file a new Residential HVAC Program proposal by April 1, 2009 for Commission approval for calendar years 2010 and 2011 which is clearly cost effective as a requirement to be able to continue to offer the program.

3. Niagara Mohawk is directed to file a new Residential HVAC Program proposal by April 1, 2009 for potential Commission approval for calendar years 2010 and 2011. The revised program should significantly increase the program energy savings and cost effectiveness by employing appropriate attributes of the "Cool Smart" program offered by its New England affiliates or provide a much more well documented analysis which clearly demonstrates the appropriateness of the program savings level proposed by the company or why the amounts anticipated in the June 23, 2008 Order in Case 07-M-0548 (the "EEPS Order") cannot be achieved.

4. Con Edison is directed to separately implement and administer its residential electric and gas energy efficiency programs.

5. O&R is directed to submit by April 1, 2009, an analysis of the costs and benefits of jointly administrating its energy efficiency programs with Con Edison as an alternative to hiring a program administration contractor or separately providing the function in-house.

6. The annual program budgets, evaluation (measurement and verification) budgets, energy savings goals, and shareholder performance incentive targets for the "Fast Track" utility-administered electric energy efficiency programs shall be as set forth in Appendix 1, Table 3 attached to this order.

7. The Residential HVAC Programs shall be conducted uniformly in accordance with the requirements set forth in Appendix 1, Table 2 attached to this order.

8. The Utilities shall track their expenditures on evaluation-related market research in a manner that they may be reported and scrutinized in the future.

9. Except where we have required uniformity in the body of this order, the Utilities shall be allowed to make minor refinements to the approved energy efficiency measures and customer rebates/financial inducements on notice to Staff for review and comment at least 90 days before the proposed implementation date of any such proposed changes, but if Staff objects no such refinements shall be made without our approval.

10. The Utilities are directed to work with NYSERDA to develop effective administrative procedures that will identify and prevent unintended double payment of rebates/financial inducements in their respective program offerings.

11. The technical manual entitled "New York Standard Approach for Estimating Energy savings from Energy Efficiency Programs" dated December 28, 2008 shall be used to standardize

energy savings estimation approaches, calculations and assumptions at the measure level for estimating energy savings from "Fast Track" programs. 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](http://www.dps.state.ny.us/Phase2_Case_07-M-0548.htm)

12. The Utilities are directed to submit implementation plans in compliance filings that describe in detail the overall programs and how the individual energy efficiency programs operate, including revised evaluation plans and quality assurance plans, for their approved programs within 60 days of the date of issuance of this order that include the elements requested by Staff described in the body of this order.

13. In the implementation plans, the Utilities 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 Fast Track O&E/Marketing programs relate to the company's general O&E/Marketing program; 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.

14. 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.

15. 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.

16. The periodic quarterly program and evaluation summary status reports required by the EEPS Order shall be provided no later than 45 days after the conclusion of the calendar quarter. The annual program reports and evaluations and reports required by the EEPS Order shall be provided no later than 60 days after the conclusion of the calendar year.

17. The Utilities are directed to submit a monthly "scorecard report" to the Director of the Office of Energy Efficiency and Environment or his designee that provides a summary of key program achievements within 14 days after the conclusion of each program month. The scope of the scorecard report shall be as defined by said Director.

18. The Utilities are directed to make a copy of all their plans and reports described above, except the monthly scorecard report, accessible to the public through the Internet, or in other convenient formats if requested.

19. Any change to System Benefit Charge (SBC) collection amounts or rates indicated by the budgets approved in this order will be considered by the Commission in the near future when the other currently pending energy efficiency program proposals are considered.

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

21. These proceedings are continued.

By the Commission,

(SIGNED)

JACLYN A. BRILLING  
Secretary

Table 1

**Breakdown of Utility "Expedited" Programs Data Embedded in EEPS June 23, 2008 Order**

	<u>2008 (1/4 Yr)</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2008-2011</u>	
<b><u>Central Hudson</u></b>						
<i>Residential HVAC Program</i>						
Cumul. Eff. Savings (MWhs)	106	588	1,138	1,976	1,976	
Program & Admin Costs	\$130,461	\$521,843	\$521,843	\$521,843	\$1,695,988	95%
<u>M&amp;V Costs</u>	<u>\$6,656</u>	<u>\$26,625</u>	<u>\$26,625</u>	<u>\$26,625</u>	<u>\$86,530</u>	5%
Total Costs	\$137,117	\$548,467	\$548,467	\$548,467	\$1,782,518	
Potential Shareholder Incentives	<u>\$4,106</u>	<u>\$18,727</u>	<u>\$21,363</u>	<u>\$32,555</u>	<u>\$76,751</u>	@\$38.85/MWh
Residential HVAC Total	\$141,223	\$567,194	\$569,830	\$581,022	\$1,859,270	
<i>Small Business Program</i>						
Cumul. Eff. Savings (MWhs)	2,290	12,596	27,482	45,803	45,803	
Program & Admin Costs	\$899,266	\$3,597,064	\$3,597,064	\$3,597,064	\$11,690,458	95%
<u>M&amp;V Costs</u>	<u>\$45,881</u>	<u>\$183,524</u>	<u>\$183,524</u>	<u>\$183,524</u>	<u>\$596,452</u>	5%
Total Costs	\$945,147	\$3,780,588	\$3,780,588	\$3,780,588	\$12,286,910	
Potential Shareholder Incentives	<u>\$88,973</u>	<u>\$400,374</u>	<u>\$578,319</u>	<u>\$711,780</u>	<u>\$1,779,447</u>	@\$38.85/MWh
Small Business Total	\$1,034,120	\$4,180,962	\$4,358,907	\$4,492,368	\$14,066,357	
Total Program Costs	\$1,082,264	\$4,329,055	\$4,329,055	\$4,329,055	\$14,069,429	
Total Incentives	<u>\$93,079</u>	<u>\$419,102</u>	<u>\$599,682</u>	<u>\$744,335</u>	<u>\$1,856,198</u>	
GRAND TOTAL	\$1,175,343	\$4,748,157	\$4,928,737	\$5,073,390	\$15,925,627	
<b><u>Con Edison</u></b>						
<i>Residential HVAC Program</i>						
Cumul. Eff. Savings (MWhs)	667	3,707	7,175	12,461	12,461	
Program & Admin Costs	\$822,879	\$3,291,515	\$3,291,515	\$3,291,515	\$10,697,424	95%
<u>M&amp;V Costs</u>	<u>\$41,984</u>	<u>\$167,934</u>	<u>\$167,934</u>	<u>\$167,934</u>	<u>\$545,787</u>	5%
Total Costs	\$864,862	\$3,459,450	\$3,459,450	\$3,459,450	\$11,243,211	
Potential Shareholder Incentives	<u>\$25,900</u>	<u>\$118,122</u>	<u>\$134,745</u>	<u>\$205,342</u>	<u>\$484,108</u>	@\$38.85/MWh
Residential HVAC Total	\$890,762	\$3,577,571	\$3,594,194	\$3,664,791	\$11,727,319	
<i>Small Business Program</i>						
Cumul. Eff. Savings (MWhs)	14,445	79,448	173,341	288,902	288,902	
Program & Admin Costs	\$5,672,108	\$22,688,434	\$22,688,434	\$22,688,434	\$73,737,410	95%
<u>M&amp;V Costs</u>	<u>\$289,393</u>	<u>\$1,157,573</u>	<u>\$1,157,573</u>	<u>\$1,157,573</u>	<u>\$3,762,113</u>	5%
Total Costs	\$5,961,502	\$23,846,007	\$23,846,007	\$23,846,007	\$77,499,523	
Potential Shareholder Incentives	<u>\$561,194</u>	<u>\$2,525,357</u>	<u>\$3,647,742</u>	<u>\$4,489,544</u>	<u>\$11,223,837</u>	@\$38.85/MWh
Small Business Total	\$6,522,696	\$26,371,364	\$27,493,749	\$28,335,551	\$88,723,360	
Total Program Costs	\$6,826,364	\$27,305,457	\$27,305,457	\$27,305,457	\$88,742,734	
Total Incentives	<u>\$587,094</u>	<u>\$2,643,479</u>	<u>\$3,782,486</u>	<u>\$4,694,886</u>	<u>\$11,707,945</u>	
GRAND TOTAL	\$7,413,458	\$29,948,935	\$31,087,943	\$32,000,342	\$100,450,679	

Table 1 (Continued)

**Breakdown of Utility "Expedited" Programs Data Embedded in EEPS June 23, 2008 Order**

	<u>2008 (1/4 Yr)</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2008-2011</u>	
<b><u>O&amp;R</u></b>						
<i>Residential HVAC Program</i>						
Cumul. Eff. Savings (MWhs)	78	435	841	1,461	1,461	
Program & Admin Costs	\$96,493	\$385,973	\$385,973	\$385,973	\$1,254,411	95%
<u>M&amp;V Costs</u>	<u>\$4,923</u>	<u>\$19,692</u>	<u>\$19,692</u>	<u>\$19,692</u>	<u>\$64,001</u>	5%
Total Costs	\$101,416	\$405,665	\$405,665	\$405,665	\$1,318,412	
Potential Shareholder Incentives	<u>\$3,037</u>	<u>\$13,851</u>	<u>\$15,801</u>	<u>\$24,079</u>	<u>\$56,768</u>	@\$38.85/MWh
Residential HVAC Total	\$104,453	\$419,517	\$421,466	\$429,744	\$1,375,180	
<i>Small Business Program</i>						
Cumul. Eff. Savings (MWhs)	1,694	9,316	20,326	33,877	33,877	
Program & Admin Costs	\$665,128	\$2,660,512	\$2,660,512	\$2,660,512	\$8,646,665	95%
<u>M&amp;V Costs</u>	<u>\$33,935</u>	<u>\$135,740</u>	<u>\$135,740</u>	<u>\$135,740</u>	<u>\$441,156</u>	5%
Total Costs	\$699,063	\$2,796,253	\$2,796,253	\$2,796,253	\$9,087,821	
Potential Shareholder Incentives	<u>\$65,807</u>	<u>\$296,131</u>	<u>\$427,745</u>	<u>\$526,457</u>	<u>\$1,316,140</u>	@\$38.85/MWh
Small Business Total	\$764,870	\$3,092,383	\$3,223,997	\$3,322,710	\$10,403,961	
Total Program Costs	\$800,479	\$3,201,918	\$3,201,918	\$3,201,918	\$10,406,233	
Total Incentives	<u>\$68,844</u>	<u>\$309,982</u>	<u>\$443,545</u>	<u>\$550,536</u>	<u>\$1,372,908</u>	
GRAND TOTAL	\$869,324	\$3,511,900	\$3,645,463	\$3,752,454	\$11,779,141	
<b><u>Niagara Mohawk</u></b>						
<i>Residential HVAC Program</i>						
Cumul. Eff. Savings (MWhs)	583	3,242	6,275	10,897	10,897	
Program & Admin Costs	\$719,596	\$2,878,384	\$2,878,384	\$2,878,384	\$9,354,747	95%
M&V Costs	\$36,714	\$146,856	\$146,856	\$146,856	\$477,283	5%
Total Costs	\$756,310	\$3,025,240	\$3,025,240	\$3,025,240	\$9,832,030	
Potential Shareholder Incentives	\$22,649	\$103,296	\$117,832	\$179,568	\$423,346	@\$38.85/MWh
Residential HVAC Total	\$778,959	\$3,128,536	\$3,143,072	\$3,204,808	\$10,255,376	
<i>Small Business Program</i>						
Cumul. Eff. Savings (MWhs)	12,632	69,476	151,584	252,641	252,641	
Program & Admin Costs	\$4,960,179	\$19,840,716	\$19,840,716	\$19,840,716	\$64,482,328	95%
M&V Costs	\$253,070	\$1,012,281	\$1,012,281	\$1,012,281	\$3,289,915	5%
Total Costs	\$5,213,249	\$20,852,998	\$20,852,998	\$20,852,998	\$67,772,243	
Potential Shareholder Incentives	\$490,757	\$2,208,389	\$3,189,899	\$3,926,043	\$9,815,087	@\$38.85/MWh
Small Business Total	\$5,704,006	\$23,061,387	\$24,042,897	\$24,779,041	\$77,587,330	
Total Program Costs	\$5,969,559	\$23,878,238	\$23,878,238	\$23,878,238	\$77,604,273	
Total Incentives	\$513,406	\$2,311,685	\$3,307,731	\$4,105,612	\$10,238,433	
GRAND TOTAL	\$6,482,965	\$26,189,923	\$27,185,969	\$27,983,849	\$87,842,706	

Table 2

**Uniform Requirements for Residential HVAC Programs**

<b><u>MEASURE</u></b>	<b><u>ELIGIBILITY</u></b>	<b><u>REBATE</u></b>
Central Air Conditioning	SEER $\geq$ 15 EER $\geq$ 12.5 Plus "Quality Installation"	\$400
Central Air Conditioning	SEER $\geq$ 16 EER $\geq$ 13.0 Plus "Quality Installation"	\$600
Central Air Source Heat Pump	SEER $\geq$ 15 EER $\geq$ 12 HSPF $\geq$ 8.5 Plus "Quality Installation"	\$400
Central Air Source Heat Pump	SEER $\geq$ 16 EER $\geq$ 13.0 HSPF $\geq$ 9.0 Plus "Quality Installation"	\$600
Duct and Air Sealing	Blower Door and Duct Blaster assisted sealing by certified contractors	\$600
ECM Furnace Fan	Electronically Controlled Motor (ECM) Fan	\$200
Electric Heat Pump Water Heater	Energy Factor > 2.0	\$400
Energy Star Thermostats	Energy Star	\$25

SEER – Seasonal Energy Efficiency Ratio

EER – Energy Efficiency Ratio

HSPF – Heating Season Performance Factor

Quality Installation - Installation by a BPI-certified contractor and documentation that an ACCA Manual J calculation has been completed to determine the proper size of the installed central air conditioning equipment makes the contractor eligible for an incremental financial inducement of \$200.

Table 3

**Approved Utility "Expedited" Program Costs & Savings Targets**

	<u>2008 (1/4 Yr)</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2008-2011</u>	
<b><u>Central Hudson</u></b>						
<i>Residential HVAC Program</i>						
Cumul. Eff. Savings (MWhs)	0	546	1,273	2,001	2,001	
Program & Admin Costs	\$0	\$603,813	\$805,084	\$805,084	\$2,213,980	95%
<u>M&amp;V Costs</u>	<u>\$0</u>	<u>\$31,780</u>	<u>\$42,373</u>	<u>\$42,373</u>	<u>\$116,525</u>	5%
Total Costs	\$0	\$635,592	\$847,456	\$847,456	\$2,330,505	
Potential Shareholder Incentives	<u>\$0</u>	<u>\$21,202</u>	<u>\$28,269</u>	<u>\$28,269</u>	<u>\$77,739</u>	@\$38.85/MWh
Residential HVAC Total	\$0	\$656,794	\$875,725	\$875,725	\$2,408,244	
<i>Small Business Program</i>						
Cumul. Eff. Savings (MWhs)	0	12,371	28,865	45,360	45,360	
Program & Admin Costs	\$0	\$3,204,962	\$4,273,283	\$4,273,283	\$11,751,529	95%
<u>M&amp;V Costs</u>	<u>\$0</u>	<u>\$168,682</u>	<u>\$224,910</u>	<u>\$224,910</u>	<u>\$618,502</u>	5%
Total Costs	\$0	\$3,373,645	\$4,498,193	\$4,498,193	\$12,370,030	
Potential Shareholder Incentives	<u>\$0</u>	<u>\$480,610</u>	<u>\$640,813</u>	<u>\$640,813</u>	<u>\$1,762,236</u>	@\$38.85/MWh
Small Business Total	\$0	\$3,854,254	\$5,139,006	\$5,139,006	\$14,132,266	
Total Program Costs	\$0	\$4,009,237	\$5,345,649	\$5,345,649	\$14,700,535	
Total Incentives	<u>\$0</u>	<u>\$501,811</u>	<u>\$669,082</u>	<u>\$669,082</u>	<u>\$1,839,975</u>	
GRAND TOTAL	\$0	\$4,511,048	\$6,014,731	\$6,014,731	\$16,540,510	
<b><u>Con Edison</u></b>						
<i>Residential HVAC Program</i>						
Cumul. Eff. Savings (MWhs)	0	1,933	4,509	7,086	7,086	
Program & Admin Costs	\$0	\$2,883,247	\$3,844,330	\$3,844,330	\$10,571,907	95%
<u>M&amp;V Costs</u>	<u>\$0</u>	<u>\$151,750</u>	<u>\$202,333</u>	<u>\$202,333</u>	<u>\$556,416</u>	5%
Total Costs	\$0	\$3,034,997	\$4,046,663	\$4,046,663	\$11,128,323	
Potential Shareholder Incentives	<u>\$0</u>	<u>\$75,079</u>	<u>\$100,106</u>	<u>\$100,106</u>	<u>\$275,291</u>	@\$38.85/MWh
Residential HVAC Total	\$0	\$3,110,077	\$4,146,769	\$4,146,769	\$11,403,614	
<i>Small Business Program</i>						
Cumul. Eff. Savings (MWhs)	0	79,057	184,466	289,875	289,875	
Program & Admin Costs	\$0	\$19,872,969	\$26,497,292	\$26,497,292	\$72,867,554	95%
<u>M&amp;V Costs</u>	<u>\$0</u>	<u>\$1,045,946</u>	<u>\$1,394,594</u>	<u>\$1,394,594</u>	<u>\$3,835,134</u>	5%
Total Costs	\$0	\$20,918,915	\$27,891,887	\$27,891,887	\$76,702,688	
Potential Shareholder Incentives	<u>\$0</u>	<u>\$3,071,357</u>	<u>\$4,095,143</u>	<u>\$4,095,143</u>	<u>\$11,261,644</u>	@\$38.85/MWh
Small Business Total	\$0	\$23,990,272	\$31,987,030	\$31,987,030	\$87,964,332	
Total Program Costs	\$0	\$23,953,912	\$31,938,549	\$31,938,549	\$87,831,011	
Total Incentives	<u>\$0</u>	<u>\$3,146,437</u>	<u>\$4,195,249</u>	<u>\$4,195,249</u>	<u>\$11,536,935</u>	
GRAND TOTAL	\$0	\$27,100,349	\$36,133,798	\$36,133,798	\$99,367,946	

Table 3 (Continued)

**Approved Utility "Expedited" Program Costs & Savings Targets**

	<u>2008 (1/4 Yr)</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2008-2011</u>	
<b><u>O&amp;R</u></b>						
<i>Residential HVAC Program</i>						
Cumul. Eff. Savings (MWhs)	0	229	0	0	229	
Program & Admin Costs	\$0	\$341,589	\$0	\$0	\$341,589	95%
<u>M&amp;V Costs</u>	<u>\$0</u>	<u>\$17,978</u>	<u>\$0</u>	<u>\$0</u>	<u>\$17,978</u>	5%
Total Costs	\$0	\$359,567	\$0	\$0	\$359,567	
Potential Shareholder Incentives	<u>\$0</u>	<u>\$8,895</u>	<u>\$0</u>	<u>\$0</u>	<u>\$8,895</u>	@\$38.85/MWh
Residential HVAC Total	\$0	\$368,462	\$0	\$0	\$368,462	
<i>Small Business Program</i>						
Cumul. Eff. Savings (MWhs)	0	9,367	21,856	34,345	34,345	
Program & Admin Costs	\$0	\$2,354,572	\$3,139,429	\$3,139,429	\$8,633,430	95%
<u>M&amp;V Costs</u>	<u>\$0</u>	<u>\$123,925</u>	<u>\$165,233</u>	<u>\$165,233</u>	<u>\$454,391</u>	5%
Total Costs	\$0	\$2,478,497	\$3,304,662	\$3,304,662	\$9,087,821	
Potential Shareholder Incentives	<u>\$0</u>	<u>\$363,898</u>	<u>\$485,197</u>	<u>\$485,197</u>	<u>\$1,334,292</u>	@\$38.85/MWh
Small Business Total	\$0	\$2,842,395	\$3,789,859	\$3,789,859	\$10,422,113	
Total Program Costs	\$0	\$2,838,064	\$3,784,085	\$3,784,085	\$10,406,233	
Total Incentives	<u>\$0</u>	<u>\$372,793</u>	<u>\$497,057</u>	<u>\$497,057</u>	<u>\$1,366,907</u>	
GRAND TOTAL	\$0	\$3,210,856	\$4,281,142	\$4,281,142	\$11,773,140	
<b><u>Niagara Mohawk</u></b>						
<i>Residential HVAC Program</i>						
Cumul. Eff. Savings (MWhs)	0	148	345	542	542	
Program & Admin Costs	\$0	\$547,628	\$730,170	\$730,170	\$2,007,968	95%
M&V Costs	<u>\$0</u>	<u>\$28,823</u>	<u>\$38,430</u>	<u>\$38,430</u>	<u>\$105,683</u>	5%
Total Costs	\$0	\$576,450	\$768,600	\$768,600	\$2,113,650	
Potential Shareholder Incentives	<u>\$0</u>	<u>\$5,743</u>	<u>\$7,657</u>	<u>\$7,657</u>	<u>\$21,057</u>	@\$38.85/MWh
Residential HVAC Total	\$0	\$582,193	\$776,257	\$776,257	\$2,134,707	
<i>Small Business Program</i>						
Cumul. Eff. Savings (MWhs)	0	68,902	160,772	252,641	252,641	
Program & Admin Costs	\$0	\$17,535,115	\$23,380,153	\$23,380,153	\$64,295,421	95%
M&V Costs	\$0	\$922,901	\$1,230,534	\$1,230,534	\$3,383,970	5%
Total Costs	\$0	\$18,458,016	\$24,610,688	\$24,610,688	\$67,679,391	
Potential Shareholder Incentives	\$0	\$2,676,846	\$3,569,128	\$3,569,128	\$9,815,103	@\$38.85/MWh
Small Business Total	\$0	\$21,134,862	\$28,179,816	\$28,179,816	\$77,494,494	
Total Program Costs	\$0	\$19,034,466	\$25,379,288	\$25,379,288	\$69,793,041	
Total Incentives	<u>\$0</u>	<u>\$2,682,589</u>	<u>\$3,576,785</u>	<u>\$3,576,785</u>	<u>\$9,836,160</u>	
GRAND TOTAL	\$0	\$21,717,055	\$28,956,073	\$28,956,073	\$79,629,201	

Table 1

**Energy (LBMP) Price Forecast**

NYISO ZONE  
(\$/MWH in 2008 \$)

<u>Year</u>	<u>A-E</u>	<u>F</u>	<u>G-I</u>	<u>J</u>	<u>K</u>	<u>NYS</u>	<u>A-I</u>
2008	\$60.80	\$71.28	\$77.52	\$81.08	\$88.35	\$75.69	\$66.38
2009	\$63.32	\$71.53	\$80.59	\$83.15	\$87.69	\$77.85	\$69.22
2010	\$62.01	\$69.93	\$79.25	\$81.54	\$85.25	\$76.22	\$67.87
2011	\$60.78	\$68.43	\$78.00	\$80.03	\$82.96	\$74.69	\$66.61
2012	\$59.58	\$66.97	\$76.78	\$78.56	\$80.73	\$73.19	\$65.37
2013	\$59.44	\$66.80	\$76.18	\$78.26	\$80.51	\$72.93	\$65.14
2014	\$59.30	\$66.63	\$75.59	\$77.97	\$80.29	\$72.67	\$64.91
2015	\$59.17	\$66.46	\$75.00	\$77.68	\$80.08	\$72.41	\$64.68
2016	\$59.31	\$66.63	\$75.19	\$77.87	\$80.27	\$72.58	\$64.84
2017	\$59.46	\$66.79	\$75.37	\$78.06	\$80.47	\$72.76	\$65.00
2018	\$59.60	\$66.95	\$75.56	\$78.26	\$80.67	\$72.94	\$65.16
2019	\$59.75	\$67.12	\$75.74	\$78.45	\$80.86	\$73.12	\$65.32
2020	\$59.90	\$67.28	\$75.93	\$78.64	\$81.06	\$73.30	\$65.48
2021	\$60.04	\$67.45	\$76.11	\$78.83	\$81.26	\$73.48	\$65.64
2022	\$60.19	\$67.61	\$76.30	\$79.03	\$81.46	\$73.66	\$65.80
2023	\$60.34	\$67.78	\$76.49	\$79.22	\$81.66	\$73.84	\$65.96
2024	\$60.49	\$67.95	\$76.68	\$79.42	\$81.86	\$74.02	\$66.12
2025	\$60.49	\$67.95	\$76.68	\$79.42	\$81.86	\$74.02	\$66.12
2026	\$60.49	\$67.95	\$76.68	\$79.42	\$81.86	\$74.02	\$66.12
2027	\$60.49	\$67.95	\$76.68	\$79.42	\$81.86	\$74.02	\$66.12
2028	\$60.49	\$67.95	\$76.68	\$79.42	\$81.86	\$74.02	\$66.12
2029	\$60.49	\$67.95	\$76.68	\$79.42	\$81.86	\$74.02	\$66.12
2030	\$60.49	\$67.95	\$76.68	\$79.42	\$81.86	\$74.02	\$66.12

**Notes**

A-E, G-I, A-I, NYS weighted averages using energy requirements

Above estimates do not include distribution line losses. Add an average 7.2% estimate (i.e. divided above costs by 0.928)

Table 2

**Marginal Capacity Price Forecast**

<u>Year</u>	<u>MARGINAL GENERATION CAPACITY COSTS</u> (\$/KW-Year in 2008 \$)		<u>MARGINAL DISTRIBUTION CAPACITY COSTS</u> (\$/KW-Year in 2008 \$)	
	<u>Upstate</u>	<u>NYC</u>	<u>Upstate</u>	<u>NYC</u>
2008	\$31.13	\$55.19	\$33.48	\$100.00
2009	\$38.65	\$55.51		
2010	\$45.77	\$120.22	(constant in 2008 \$)	
2011	\$52.39	\$119.74		
2012	\$58.61	\$119.22		
2013	\$64.47	\$125.08		
2014	\$69.98	\$121.04		
2015	\$75.16	\$113.36		
2016	\$80.04	\$122.29		
2017	\$84.62	\$136.08		
2018	\$88.93	\$137.15		
2019	\$92.98	\$138.11		
2020	\$96.78	\$138.98		
2021	\$100.35	\$139.76		
2022	\$100.35	\$139.76		
2023	\$100.35	\$139.76		
2024	\$100.35	\$139.76		
2025	\$100.35	\$139.76		
2026	\$100.35	\$139.76		
2027	\$100.35	\$139.76		
2028	\$100.35	\$139.76		
2029	\$100.35	\$139.76		
2030	\$100.35	\$139.76		

**Notes**

Marginal Generation Capacity Costs include reserve margin and demand curve purchase requirements. Thus, these are a forecast of annual savings in generation marginal capacity costs due to 1 kW reduction in load at the time of peak load.

Marginal transmission costs included in LBMPs.

Above estimates do not include distribution line losses. Add an average 7.2% estimate (i.e. divided above costs by 0.928)

Table 3

**Natural Gas Price Forecast**

Based on the 10/6/08 ICF/NYSERDA Interim Forecast  
(\$/MMBtu in 2008 \$)

<u>Year</u>	<u>Henry Hub</u>	<u>Upstate NY</u>	<u>Downstate NY</u>
2008	\$9.45	\$10.38	\$10.92
2009	\$7.67	\$8.60	\$9.14
2010	\$7.45	\$8.38	\$8.92
2011	\$7.24	\$8.17	\$8.71
2012	\$7.04	\$7.97	\$8.51
2013	\$7.04	\$7.97	\$8.51
2014	\$7.04	\$7.97	\$8.51
2015	\$7.04	\$7.97	\$8.51
2016	\$7.11	\$8.04	\$8.58
2017	\$7.18	\$8.11	\$8.65
2018	\$7.25	\$8.18	\$8.72
2019	\$7.25	\$8.18	\$8.72
2020	\$7.25	\$8.18	\$8.72
2021	\$7.25	\$8.18	\$8.72
2022	\$7.25	\$8.18	\$8.72
2023	\$7.25	\$8.18	\$8.72
2024	\$7.25	\$8.18	\$8.72
2025	\$7.25	\$8.18	\$8.72
2026	\$7.25	\$8.18	\$8.72
2027	\$7.25	\$8.18	\$8.72
2028	\$7.25	\$8.18	\$8.72
2029	\$7.25	\$8.18	\$8.72
2030	\$7.25	\$8.18	\$8.72