Central Hudson Gas & Electric Corporation

Exhibit _____ (EEP-3)

Schedule A

Evaluation Plan
Residential ENERGY STAR® HVAC Program

Program Description

- **Program Objectives:** The objective of this program is to increase the penetration of ENERGY STAR® central air conditioners and even more energy efficient HVAC solutions, such as central air-source and ground-source heat pumps, and electric heat pump water heaters, in the Central Hudson service territory. This will be accomplished by providing proper training, education and incentives to contractors for quality installations of such energy efficient equipment. The program will also educate the customer and provide incentives to customers to help pay for incremental costs to install HVAC solutions that meet or exceed efficiency and quality installation standards. "Quality installation standards" includes having the installing contractors: (1) determine that the equipment being installed is properly sized, and (2) obtain additional savings by installing water flow-reducing devices and promoting ENERGY STAR rated washing machines.

- **Program Theory:** Research performed over the past two decades by Central Hudson and other utilities has identified the most significant barriers to greater penetration of high-efficiency space- and water-heating equipment to be:
    - Higher first-cost, relative to lowest-cost/lower efficiency units
    - Lack of promotion by installing contractors, who typically recommend units that are easiest to sell and install. In many instances, this is because the installing contractors have little familiarity with high-efficiency equipment.

  Research has also shown that installing contractors seldom take the time to investigate equipment sizing, to determine whether the unit being replaced may be oversized, either through poor sizing initially or because the thermal envelope of the home has been improved; or undersized, again because of an initial sizing error or because of an addition to the home.

  Central Hudson's program design addresses both barriers as well as requiring the installing contractor to determine whether the capacity of the HVAC unit being installed should be different than the capacity of the unit being replaced. Because additional water-heating savings can be achieved by reducing hot-water usage, the installing contractor will also offer to install low-flow showerheads and faucets to customers who install a more efficient water heater, air-conditioner, or heat pump. The contractor will also inform the customer that Central Hudson will provide an additional financial incentive if the customer purchases an ENERGY STAR rated washing machine. Installing contractors will be paid a small incentive to encourage them to become a Trade Ally Partner and to provide the additional services.

- **Program Administration and Delivery:** The program will be administered by Central Hudson working with a selected implementation vendor who will be responsible for marketing the program to heating contractors, dealers, and plumbers in the Company's

service territory, operating a call center, quality assurance inspections, maintaining program records in a computerized tracking system, rebate fulfillment, and producing routine status reports.

- **Quality Assurance (QA) Inspections:** QA inspections performed of the first four installations made by each HVAC contractor or plumber, and roughly every tenth installation thereafter randomly. If any problems are observed, additional inspections will be performed.

- **Eligible Program Measures:** The following table presents estimated per-unit savings for each HVAC equipment type and efficiency tier or option, relative to a representative assumed baseline unit. These are the "deemed savings" values that will be used until an Impact Evaluation is performed.

Equipment Type / Baseline	Minimum Performance	kWh/yr	kW
Central Air Conditioner / *Baseline: SEER = 11*	Tier 1: SEER = 14 / EER = 12.0	409	1.0
	Tier 2: SEER = 15 / EER = 13.0	509	1.2
Air-Source Heat Pump / *Baseline: SEER = 11 ASHP*	SEER=14 / EER=12.0 / HSPF=8.5	1,574	1.2
	SEER=15 / EER=13.0 / HSPF=9.0	1,976	1.3
Ground-Source Heat Pump / *Baseline: SEER = 11 ASHP*	Tier 1: EER = 15 / COP = 3.1	3,698	1.2
	Tier 2: EER = 16 / COP = 3.5	4,483	1.5
Heat Pump Water Heater / *Baseline: EF = 0.9*	EF = 2.0	2,320	0.5

- **Targeted Participation Levels:** The following table presents targeted participation (units installed) during each year of the program.

Equipment Type	Distribution By Tier	Year	Installations
Central Air Conditioner	Tier 1: 80%	2009	150
		2010	360
	Tier 2: 20%	2011	550
		Total	**1,060**
Air-Source Heat Pump	Tier 1: 70%	2009	120
		2010	250
	Tier 2: 30%	2011	450
		Total	**820**
Ground-Source Heat Pump	Tier 1: 60%	2009	15
		2010	35
	Tier 2: 40%	2011	75
		Total	**125**
Heat Pump Water Heater	N/A	2009	15
		2010	50
		2011	250
		Total	**315**

Because the date when authorization to offer the program will be received is uncertain, we have not anticipated any actual installations during 2008. However, if expedited authorization were received, installations in 2008 would produce associated energy savings.

- **Anticipated Savings:** Using the information in the two preceding tables and an assumed net-to-gross ratio of 95%, the net savings (annualized kWh/yr) are shown in the following table.

Equipment Type	Year	MWh/yr	Summer kW	3-Year Totals
Central Air Conditioner	2009 2010 2011	61 147 224	143 342 522	MWH/yr: 432 kW: 1,007
Central Air-Source Heat Pump	2009 2010 2011	193 402 725	114 238 427	MWH/yr: 1,320 kW: 779
Ground-Source Heat Pump	2009 2010 2011	57 133 286	20 47 99	MWH/yr: 476 kW: 166
Heat Pump Water Heater	2009 2010 2011	33 110 551	1 5 24	MWH/yr: 694 kW: 30
Totals:	2009 2010 2011	**344** **793** **1,785**	**278** **632** **1,072**[1]	**MWH/yr:** **2,922** **kW: 1,982**

- **Program Schedule:** Central Hudson plans to begin offering this program to customers upon Commission approval.
- **Program Tracking Database (PTD):** The PTD will contain program verified data compiled from application forms and QA inspections, and bank statements verifying incentive checks were deposited. The PTD supports program evaluation through the collection of all relevant data pertaining to customer and trade ally participants and measures installed Examples of measure-specific data that will be collected include:
    - Date when Program Application was received
    - Equipment to be installed (Type, make, model number, serial number, capacity rating, efficiency rating)
    - Equipment to be replaced (Type, make, model number, serial number, capacity rating, efficiency rating)

[1] Totals corrected from Exhibit EEP-1.

- Date when installation was completed
- Installation location
- Characteristics of home (dwelling type, heated floorspace, number of occupants)
- Project or work order number
- QA inspection date (if applicable)
- Annualized energy savings
- Measure life
- Total measure installed cost
- Incremental measure cost
- Incentive payment amount
- Date incentive check mailed
- Date incentive check returned to bank

Evaluation Approach – Overview

In December 2008 Central Hudson will select and contract with an individual or firm that has extensive prior experience in performing process and impact evaluations. A ***Process Evaluation*** will be performed during Year One and immediately after Year Three, with an objective of identifying enhancements that can be made to implementation efforts that may contribute to improved results. ***Impact Evaluations*** will be performed during Year Two and after Year Three.

Consistent with the Working Group III recommendation in the EEPS proceeding, Central Hudson has budgeted approximately 5% of the program budget to fund evaluation efforts.

Central Hudson anticipates that its evaluation efforts will be informed by the ongoing efforts of the newly formulated Evaluation Advisory Group and by collaboration with the other utilities in the State that are planning to implement a similar program. The Company may participate in jointly sponsored evaluation studies with the other utilities.

Process Evaluation – Detailed Activities

The initial Process Evaluation efforts will focus on identifying how the program is operating during the start-up phase, with the objective of identifying improvements that can be made to program implementation efforts in an initial report. A final report summarizing results from the Process Evaluation, which will include survey interviews with participating and nonparticipating customers and trade allies, will be submitted before year-end 2009.

The second Process Evaluation will be scheduled for the January to April period of 2012.

The Process Evaluation reports will document changes to program processes during start-up annually thereafter, and the following information:

- Accuracy and completeness of program records (tracking database) to ensure that (1) reported accomplishments are accurate, and (2) data required to support Impact Evaluation efforts is being collected.
- Level of customer satisfaction at different points during the three-year program term.
- Effectiveness of the program delivery mechanism from the position of the program delivery contractors, program customers, trade allies and other key stakeholders. Did the delivery mechanism differ from the program plan? If yes, how and why?
- Effectiveness of program promotion activities.

- Effectiveness in overcoming barriers to participation on the part of both customers and trade allies.
- Remaining barriers to program participation, including an assessment of why some customers and trade allies choose to not participate in the program.
- Reasons for participation; extent to which efficient equipment would have been installed without the program.[2]
- Other energy efficiency purchases (e.g., those related to reducing electricity usage), and when these were made.
- Identification of lessons learned and specific actionable recommendations for program improvement.

Impact Evaluation – Detailed Activities

The Impact Evaluations will quantify the gross and net gas savings attributable to program efforts based on (a) how the measures installed through this program actually perform, and (b) customer motivation to participate i.e., extent to which customer is a "free-rider"). Results will be obtained for each measure category (i.e., each tier of each measure type). The first Impact evaluation will be performed during the summer of 2010, and will analyze data pertaining to measures installed during 2009. The second Impact evaluation will be performed during the summer of 2012, and will analyze data pertaining to measures installed during 2010 and 2011.

At this point in time, without counsel from the Evaluation Advisory Group, Central Hudson proposes the following Impact Evaluation plan.

- **Impact Evaluation Methodology:** A regression analysis of billed gas-usage will be performed that includes both participants and a control group of similar homes with natural gas heat that did not install measures. Billed gas usage for at least a year prior to measure installation will be analyzed. Other explanatory variables (presence of other gas-using equipment, heating degree-days, dwelling type and size, and number of occupants) will be included in the analysis. This analysis will require a combination of on-site and telephone surveys to obtain accurate dwelling-specific data.
- **Net-to-Gross (NTG) Factor:** Prior to any additional analysis being conducted, the Companies will use a 5% reduction for free-ridership net of spillover. The Impact Evaluations will produce Program-specific NTG assessments based on data collected via participant surveys.
- **Sampling Strategies and Design and Data Reliability Standards:** Consistent with the Evaluation Plan Guideline for EEPS Program Administrators and as recommended by Working Group III, Central Hudson's goal for estimating gross savings at the program level is at the 90 percent confidence interval, within +/- 10 percent precision. The Company will develop sampling protocols for all of its evaluations based on this standard.
- **Steps to Identify and Mitigate Threats to Data Reliability:** The Company will review the detailed evaluation methodology submitted by the selected evaluation contractor for consistency with the Evaluation Advisory Group guidelines, the requirement to maintain a 90% confidence interval within +/- 10 % precision and the overall need to identify and

[2] The second part pertains to net-to-gross analysis.

mitigate threats to reliability of the results. The evaluation contractor will be required to ensure data reliability to the greatest practical extent, including methods for minimizing systematic and random error and techniques for reducing uncertainty introduced by necessary assumptions and adjustments to the data.

Reporting

Central Hudson plans to provide the Commission with quarterly reports on the progress of program implementation. These reports will include information on actual expenses, customer participation, and savings realized compared to annual budgets and goals. These reports will also include information about ongoing program evaluation efforts. Each quarterly report will be submitted to the Commission approximately 45 days following the end of the calendar quarter.

In addition to quarterly reporting, the Company proposes to submit an annual report to the Commission for the purpose of updating its proposed budgets and goals for the coming year informed by evaluation findings, customer response to program services, and other relevant market intelligence. The proposed budget to be included in this annual update will reflect any under or over-spending from the prior year. Each annual report will be submitted to the Commission approximately 90 days following the end of the calendar year.

The specific categories of information included in the report include:

- Program Planning & Administrative Expenditures, year to date
- Program Marketing Expenditures, year to date
- Customer Incentive Expenditures, year to date
- Program Implementation Expenditures, year to date
- Evaluation & Market Research Expenditures, year to date
- Total Expenditures, year to date
- Program Year Budget, year to date
- Annual Budget
- Number of Rebates (or Participants), year to date
- Participation Goal, year to date
- Annual Participant Goal for Program Year
- Total Savings (kWh, kW, Therms), year to date
- Savings Goal, year to date
- Annual Savings Goals for Program Year

Schedule B

Evaluation Plan
Residential Efficient Gas Equipment Program

Program Description

- **Program Objectives:** The objective of this program is to increase the penetration of high efficiency natural-gas-fired space- and water-heating equipment in homes within Central Hudson's service territory. Under the program, incentives (rebates) will be provided to residential customers who are installing new or replacement gas heating and/or gas domestic water heating systems, assuming that the installed measures meet or exceed efficiency and quality installation standards. "Quality installation standards" includes having the installing contractors: (1) determine that the equipment being installed is properly sized, and (2) obtain additional savings by installing water flow-reducing devices and promoting ENERGY STAR rated washing machines.

- **Program Theory:** Research performed over the past two decades by Central Hudson and other utilities has identified the most significant barriers to greater penetration of high-efficiency space- and water-heating equipment to be:
    - Higher first-cost, relative to lowest-cost/lower efficiency units
    - Lack of promotion by installing contractors, who typically recommend units that are easiest to sell and install. In many instances, this is because the installing contractors have little familiarity with high-efficiency equipment.

  Research has also shown that installing contractors seldom take the time to investigate equipment sizing, to determine whether the unit being replaced may be oversized, either through poor sizing initially or because the thermal envelope of the home has been improved; or undersized, again because of an initial sizing error or because of an addition to the home.

  Central Hudson's program design addresses both barriers as well as requiring the installing contractor to determine whether the capacity of the heating boiler or furnace should be different than the capacity of the unit being replaced. Because additional water-heating savings can be achieved by reducing hot-water usage, the installing contractor will also offer to install low-flow showerheads and faucets to residential customers who install a more efficient water heater, furnace, or boiler. The contractor will also inform the customer that Central Hudson will provide an additional financial incentive if the customer purchases an ENERGY STAR rated washing machine. Installing contractors will be paid a small incentive to encourage them to become a Trade Ally Partner and to provide the additional services.

- **Program Administration and Delivery:** The program will be administered by Central Hudson working with a selected implementation vendor who will be responsible for marketing the program to heating contractors, dealers, and plumbers in the Company's service territory, operating a call center, quality assurance inspections, maintaining

program records in a computerized tracking system, rebate fulfillment, and producing routine status reports.

- **Quality Assurance (QA) Inspections:** QA inspections performed of the first four installations made by each HVAC contractor or plumber, and roughly every tenth installation thereafter randomly. If any problems are observed, additional inspections will be performed.
- **Eligible Program Measures:** The following table presents estimated per-unit savings for each gas equipment type and efficiency tier or option, relative to a representative assumed baseline unit. These are the "deemed savings" values that will be used until an Impact Evaluation is performed.

Equipment Type / Baseline	Minimum Performance	Therms/yr
Natural Gas Furnace / *Baseline: AFUE = 75*	AFUE = 92	163
	AFUE = 95 / ECM driving fan	185
Natural Gas Boiler / *Baseline: AFUE = 69*	AFUE = 82 (Steam w/electronic ignition)	140
	AFUE = 85 (Circulating hot water)	155
	AFUE = 90 (Circulating hot water)	180
Natural Gas Water Heater / *Baseline: EF = 0.58*	EF = 0.62 (Storage tank type)	20
	EF = 0.82 (Instantaneous type)	80
	EF = 1.30 (Solar-augmented type)	150
	ENERGY STAR Clothes Washer	16
	Low-flow showerheads and faucets	40

- **Targeted Participation Levels:** The following table presents targeted participation (units installed) during each year of the program. (Because the date when authorization to offer the program will be received is uncertain, we have not anticipated any actual installations during 2008. However, if expedited authorization were received, installations in 2008 would produce associated energy savings.

Equipment Type	Distribution By Tier	Year	Sales
Natural Gas Furnace	Tier 1: 80% Tier 2: 20%	2009 2010 2011 **Total**	60 120 120 **300**
Natural Gas Boiler	Tier 1: 50% Tier 2: 40% Tier 3: 10%	2009 2010 2011 **Total**	40 90 100 **230**
Natural Gas Water Heater	85%: 0.62 EF (Tank type) 10%: 0.82 EF (Instantaneous type) 5%: 1.30 EF (Solar augmented)	2009 2010 2011 **Total**	70 180 180 **430**

- **Anticipated Savings:** Using the information in the two preceding tables and an assumed net-to-gross ratio of 95%, the net savings (annualized therms/yr) are shown in the following table.

Equipment Type	Year	Therms/yr	3-Year Total
Natural Gas Furnace	2009 2010 2011	9,519 19,038 19,038	47,595
Natural Gas Boiler	2009 2010 2011	6,460 14,535 16,150	37,145
Natural Gas Water Heater	2009 2010 2011	2,394 6,156 6,156	14,706
Total:	**2009** **2010** **2011**	**18,373** **39,729** **41,344**[3]	**99,446**

- **Program Schedule:** Central Hudson plans to begin offering this program to customers on 11/01/2008, subject to expeditious Commission approval.
- **Program Tracking Database (PTD):** The PTD will contain program verified data compiled from application forms and QA inspections, and bank statements verifying incentive checks were deposited. The PTD supports program evaluation through the collection of all relevant data pertaining to customer and trade ally participants and measures installed Examples of measure-specific data that will be collected include:
    - Date when Program Application was received
    - Equipment to be installed (Type, make, model number, serial number, capacity rating, efficiency rating)
    - Equipment to be replaced (Type, make, model number, serial number, capacity rating, efficiency rating)
    - Date when installation was completed
    - Installation location
    - Characteristics of home (dwelling type, heated floorspace, number of occupants)
    - Project or work order number
    - QA inspection date (if applicable)
    - Annualized energy savings
    - Measure life
    - Total measure installed cost
    - Incremental measure cost

[3] Totals corrected from Exhibit EEP-1.

- Incentive payment amount
- Date incentive check mailed
- Date incentive check returned to bank

Evaluation Approach – Overview

In December 2008, Central Hudson will select and contract with an individual or firm that has extensive prior experience in performing process and impact evaluations. A ***Process Evaluation*** will be performed during Year One and immediately after Year Three, with an objective of identifying enhancements that can be made to implementation efforts that may contribute to improved results. ***Impact Evaluations*** will be performed during Year Two and after Year Three.

Consistent with the Working Group III recommendation in the EEPS proceeding, Central Hudson has budgeted approximately 5% of the program budget to fund evaluation efforts.

Central Hudson anticipates that its evaluation efforts will be informed by the ongoing efforts of the newly formulated Evaluation Advisory Group and by collaboration with the other utilities in the State that are planning to implement a similar program. The Company may participate in jointly sponsored evaluation studies with the other utilities.

Process Evaluation – Detailed Activities

The initial Process Evaluation efforts will focus on identifying how the program is operating during the start-up phase, with the objective of identifying improvements that can be made to program implementation efforts in an initial report. A final report summarizing results from the Process Evaluation, which will include survey interviews with participating and nonparticipating customers and trade allies, will be submitted before year-end 2009.

The second Process Evaluation will be scheduled for the January to April period of 2012.

The Process Evaluation reports will document changes to program processes during start-up annually thereafter, and the following information:

- Accuracy and completeness of program records (tracking database) to ensure that (1) reported accomplishments are accurate, and (2) data required to support Impact Evaluation efforts is being collected.
- Level of customer satisfaction at different points during the three-year program term.
- Effectiveness of the program delivery mechanism from the position of the program delivery contractors, program customers, trade allies and other key stakeholders. Did the delivery mechanism differ from the program plan? If yes, how and why?
- Effectiveness of program promotion activities.
- Effectiveness in overcoming barriers to participation on the part of both customers and trade allies.
- Remaining barriers to program participation, including an assessment of why some customers and trade allies choose to not participate in the program.
- Reasons for participation; extent to which efficient equipment would have been installed without the program.[4]

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[4] The second part pertains to net-to-gross analysis.

- Other energy efficiency purchases (e.g., those related to reducing electricity usage), and when these were made.
- Identification of lessons learned and specific actionable recommendations for program improvement.

Impact Evaluation – Detailed Activities

The Impact Evaluations will quantify the gross and net gas savings attributable to program efforts based on (a) how the measures installed through this program actually perform, and (b) customer motivation to participate i.e., extent to which customer is a "free-rider"). Results will be obtained for each measure category (i.e., each tier of each measure type). The first Impact evaluation will be performed during the summer of 2010, and will analyze data pertaining to measures installed during 2009. The second Impact evaluation will be performed during the summer of 2012, and will analyze data pertaining to measures installed during 2010 and 2011.

At this point in time, without counsel from the Evaluation Advisory Group, Central Hudson proposes the following Impact Evaluation plan.

- **Impact Evaluation Methodology:** A regression analysis of billed gas-usage will be performed that includes both participants and a control group of similar homes with natural gas heat that did not install measures. Billed gas usage for at least a year prior to measure installation will be analyzed. Other explanatory variables (presence of other gas-using equipment, heating degree-days, dwelling type and size, and number of occupants) will be included in the analysis. This analysis will require a combination of on-site and telephone surveys to obtain accurate dwelling-specific data.
- **Net-to-Gross (NTG) Factor:** Prior to any additional analysis being conducted, the Companies will use a 5% reduction for free-ridership net of spillover. The Impact Evaluations will produce Program-specific NTG assessments based on data collected via participant surveys.
- **Sampling Strategies and Design and Data Reliability Standards:** Consistent with the Evaluation Plan Guideline for EEPS Program Administrators and as recommended by Working Group III, Central Hudson's goal for estimating gross savings at the program level is at the 90 percent confidence interval, within +/- 10 percent precision. The Company will develop sampling protocols for all of its evaluations based on this standard.
- **Steps to Identify and Mitigate Threats to Data Reliability:** The Company will review the detailed evaluation methodology submitted by the selected evaluation contractor for consistency with the Evaluation Advisory Group guidelines, the requirement to maintain a 90% confidence interval within +/- 10 % precision and the overall need to identify and mitigate threats to reliability of the results. The evaluation contractor will be required to ensure data reliability to the greatest practical extent, including methods for minimizing systematic and random error and techniques for reducing uncertainty introduced by necessary assumptions and adjustments to the data.

Reporting

Central Hudson plans to provide the Commission with quarterly reports on the progress of program implementation. These reports will include information on actual expenses, customer participation, and savings realized compared to annual budgets and goals. These reports will also include information about ongoing program evaluation efforts. Each quarterly report will be submitted to the Commission approximately 45 days following the end of the calendar quarter.

In addition to quarterly reporting, the Company proposes to submit an annual report to the Commission for the purpose of updating its proposed budgets and goals for the coming year informed by evaluation findings, customer response to program services, and other relevant market intelligence. The proposed budget to be included in this annual update will reflect any under or over-spending from the prior year. Each annual report will be submitted to the Commission approximately 90 days following the end of the calendar year.

The specific categories of information included in the report include:

- Program Planning & Administrative Expenditures, year to date
- Program Marketing Expenditures, year to date
- Customer Incentive Expenditures, year to date
- Program Implementation Expenditures, year to date
- Evaluation & Market Research Expenditures, year to date
- Total Expenditures, year to date
- Program Year Budget, year to date
- Annual Budget
- Number of Rebates (or Participants), year to date
- Participation Goal, year to date
- Annual Participant Goal for Program Year
- Total Savings (kWh, kW, Therms), year to date
- Savings Goal, year to date
- Annual Savings Goals for Program Year

Schedule C

Evaluation Plan
Small Business Direct Install Program

Program Description

- **Program Objective:** The primary objective of this program is to help Central Hudson's non-residential customers to make their facilities more energy efficient, and thereby to reduce their energy usage and, correspondingly, the size of their energy bills. The target of this program is Central Hudson's smaller C&I customers (i.e., non-residential customers with electricity demand under about 100-kW). Decision-makers in this customer segment are typically regarded as "hard-to-reach" and are generally under-served by traditional C&I Efficiency programs, where the focus is most frequently on large customers because savings are expected to be likewise large.

  The energy efficiency program that Central Hudson plans to offer is mainly focused on the "Under-100-kW" segment of non-residential customers. The program has two components:
  - Energy Upgrade Facilitation (i.e., energy audits coupled with implementation assistance)
  - Financial incentives to make the economics of upgrading the efficiency of lighting, HVAC (including natural gas heating and water-heating), and other equipment powered by electricity or natural gas more economical and compelling.
- **Program Theory:** Research performed of the past two decades by Central Hudson and other utilities has identified the most significant barriers to greater penetration of high-efficiency energy-using equipment in small businesses to be:
  - Lack of information about what efficiency measures are available and effective,
  - Skepticism about the accuracy of cost-saving claims provided by contractors,
  - Lack of expertise, staff resources and especially time to seek reliable information concerning efficiency measures, obtain quotes from vendors and contractors, verify references, and obtain financing.
  - Split equipment ownership: Typically, the utility customer (i.e., the entity to whom electricity and fuel bills are sent) is the ***business owner*** and this is the entity responsible for controlling energy use by equipment at the facility. However, the business owner may not own all the equipment they control or operate. In the case of rental properties, for example, the ***building owner*** (as opposed to the owner of the business that occupies a portion of the building) may own the lights and HVAC equipment. In some instances the building owner is the utility customer, and an allocated portion of the energy bill is included in the monthly rent amount paid by the business owner.

  The proposed Energy Upgrade Facilitation process is designed to overcome these barriers, eliminating or significantly reducing the inconvenience and "hassle factors" business owners typically would experience if they try to manage retrofit projects while

simultaneously managing their businesses operations. Our approach provides comprehensive energy efficiency implementation services to support all aspects of a retrofit project, including the energy audit, project specification and design, financing, bid solicitation, bid evaluation, contractor selection, work scope management, and project inspection—all on behalf of the customer.

If the owner expresses interest, the energy audit can either be done immediately or—if proceeding immediately is not feasible—can be scheduled for a later time.

- **Program Administration and Delivery:** The program will be administered by Central Hudson working with a selected implementation vendor. Together, Central Hudson and the vendor will market the program to customers; perform energy audits; recruit and contract with the trade allies (dealers, contractors, electricians, and plumbers) who will supply and install energy efficient equipment; and inspect and approve the final installations. Central Hudson will then bill the customers for the cost net of applicable rebates. The vendor will operate a call center, maintain program records in a computerized tracking system, perform rebate fulfillment, and produce weekly status reports.
- **Quality Assurance (QA) Inspections:** QA inspections will be performed of 100% of equipment installations.
- **Per-Unit Measure Savings:** Energy and demand savings will be calculated for each measure installed, using standardized protocols and published efficiency, efficacy, and energy-use parameters. These protocols and commonly used data parameters will be documented in the program's Technical Reference Manual, which will be reviewed and approved by the Evaluation Contractor prior to program launch.
- **Targeted Participation Levels and Savings:** Program participation is estimated to increase by more than 100% each year during the three-year duration, as an ever-increasing number of trade allies become familiar with it. The following tables provide our expectation of cumulative savings that will be achieved at the end of the program term.

  Installed measures are defined as follows:

  - Lighting-1: Lighting measures involving several different fixture types that use pin-base CFL lamps LED Exit signs, and 4-foot T8 and T5 lamps.
  - Lighting-2: Lighting measures involving occupancy sensing and daylight-dimming controls.
  - HVAC-1: High-efficiency central air-conditioning and air-source heat pump units.
  - HVAC-2: Ground-source heat pump units and heat pump water heaters.
  - Custom: A variety of motor, motor controls (i.e., variable speed drives - VSDs), refrigeration measures.

The following two tables present targeted participation (units installed) and net savings during each year of the program. (A net-to-gross ratio of 95% was assumed, pending completion of the Impact Evaluation.)

Equipment	Year	Units	MWh/yr Saved (Net)	kW Reduction (Net)
Lighting-1	2009	2500	1,445	263
	2010	5000	2,890	525
	2011	7000	4,046	735
	Total	**14,500**	**8,381**	**1,523**
Lighting-2	2009	200	297	39
	2010	400	594	77
	2011	600	891	116
	Total	**1,200**	**1,783**	**232**
HVAC-1	2009	160	413	339
	2010	350	904	742
	2011	550	1,420	1,166
	Total	**1,060**	**2,736**	**2,246**
HVAC-2	2009	142	135	43
	2010	426	404	130
	2011	852	809	259
	Total	**1,419**	**1,348**	**432**
Custom	2009	175	214	71
	2010	298	363	121
	2011	875	770	257
	Total	**1,348**	**1,347**	**449**
		TOTAL	**15,595**	**4,883**

Equipment	Year	Units	Therms Saved (Net)
Furnace	2009	25	8,170
	2010	50	16,340
	2011	50	16,340
	Total	**125**	**40,850**
Boiler	2009	20	5,206
	2010	35	9,111
	2011	35	9,111
	Total	**90**	**23,427**
Water Heating	2009	30	1,283
	2010	60	2,565
	2011	60	2,565
	Total	**150**	**6,413**
Totals	2009	75	14,659
	2010	145	28,016
	2011	145	28,016
	Total	**365**	**70,690**

Because the date when authorization to offer the program will be received is uncertain, we have not anticipated any actual installations during 2008. However, if expedited authorization were received, installations in 2008 would produce associated energy savings.

- **Program Schedule:** Central Hudson plans to begin offering this program to customers upon Commission approval.
- **Program Tracking Database (PTD):** The PTD will contain program verified data compiled from Agreement forms, Energy Audits, QA inspections, and bank statements verifying incentive and trade ally payment checks were deposited. The PTD supports program evaluation through the collection of all relevant data pertaining to (1) customer and trade ally participants, (2) building owner and property manager (if applicable), and (3) measures recommended and installed. Examples of project- and measure-specific data that will be compiled in the PTD include:
    - Dates when meetings with customers occurred
    - Dates when Energy Audits began and were completed
    - Date when Program Participation Agreement was signed
    - Equipment to be installed (Type, make, model number, serial number, capacity rating, efficiency rating)
    - Equipment to be replaced (Type, make, model number, serial number, capacity rating, efficiency rating)
    - Date when installation was completed
    - Installation location
    - Characteristics of business (type, number of employees)

- Characteristics of host facility (type of building, heated floorspace, cooled floorspace, major electricity and fuel end-uses, and estimated annual usages)
- Project work order number
- QA inspection date(s)
- Annualized energy savings (both by measure and total for project)
- Measure life (for each measure)
- Measure installed cost (both by measure and total for project)
- Incentive payment amount (both by measure and total for project)
- Date incentive and payment checks mailed
- Date each check returned to bank

Evaluation Approach – Overview

In December 2008 Central Hudson will select and contract with an individual or firm that has extensive prior experience in performing process and impact evaluations. A ***Process Evaluation*** will be performed during Year One and immediately after Year Three, with an objective of identifying enhancements that can be made to implementation efforts that may contribute to improved results. ***Impact Evaluations*** will be performed during Year Two and after Year Three.

Consistent with the Working Group III recommendation in the EEPS proceeding, Central Hudson has budgeted approximately 5% of the program budget to fund evaluation efforts.

Central Hudson anticipates that its evaluation efforts will be informed by the ongoing efforts of the newly formulated Evaluation Advisory Group and by collaboration with the other utilities in the State that are planning to implement a similar program. The Company may participate in jointly sponsored evaluation studies with the other utilities.

Process Evaluation – Detailed Activities

The initial Process Evaluation efforts will focus on identifying how the program is operating during the start-up phase, with the objective of identifying improvements that can be made to program implementation efforts in an initial report. A final report summarizing results from the Process Evaluation, which will include survey interviews with participating and nonparticipating customers and trade allies, will be submitted before year-end 2009.

The second Process Evaluation will be scheduled for the January to April period of 2012.

The Process Evaluation reports will document changes to program processes during start-up annually thereafter, and the following information:

- Accuracy and completeness of program records (tracking database) to ensure that (1) reported accomplishments are accurate, and (2) data required to support Impact Evaluation efforts is being collected.
- Level of customer satisfaction at different points during the three-year program term.
- Effectiveness of the program delivery mechanism from the position of the program delivery contractors, program customers, trade allies and other key stakeholders. Did the delivery mechanism differ from the program plan? If yes, how and why?
- Effectiveness of program promotion activities.
- Effectiveness in overcoming barriers to participation on the part of both customers and trade allies.

- Remaining barriers to program participation, including an assessment of why some customers and trade allies choose to not participate in the program.
- Reasons for participation; extent to which efficient equipment would have been installed without the program.[5]
- Other energy efficiency purchases (e.g., those related to reducing electricity usage), and when these were made.
- Identification of lessons learned and specific actionable recommendations for program improvement.

Impact Evaluation – Detailed Activities

The Impact Evaluations will quantify the gross and net gas savings attributable to program efforts based on (a) how the measures installed through this program actually perform, and (b) customer motivation to participate i.e., extent to which customer is a "free-rider"). Results will be obtained for each measure category (i.e., each tier of each measure type). The first Impact evaluation will be performed during the summer of 2010, and will analyze data pertaining to measures installed during 2009. The second Impact evaluation will be performed during the summer of 2012, and will analyze data pertaining to measures installed during 2010 and 2011.

At this point in time, without counsel from the Evaluation Advisory Group, Central Hudson proposes the following Impact Evaluation plan.

- **Impact Evaluation Methodology.** A regression analysis of billed gas-usage will be performed that includes both participants and a control group of similar homes with natural gas heat that did not install measures. Billed gas usage for at least a year prior to measure installation will be analyzed. Other explanatory variables (presence of other gas-using equipment, heating degree-days, dwelling type and size, and number of occupants) will be included in the analysis. This analysis will require a combination of on-site and telephone surveys to obtain accurate dwelling-specific data.
- **Net-to-Gross (NTG) Factor**. Prior to any additional analysis being conducted, the Companies will use a 5% reduction for free-ridership net of spillover. The Impact Evaluations will produce Program-specific NTG assessments based on data collected via participant surveys.
- **Sampling Strategies and Design and Data Reliability Standards.** Consistent with the Evaluation Plan Guideline for EEPS Program Administrators and as recommended by Working Group III, Central Hudson's goal for estimating gross savings at the program level is at the 90 percent confidence interval, within +/- 10 percent precision. The Company will develop sampling protocols for all of its evaluations based on this standard.
- **Steps to Identify and Mitigate Threats to Data Reliability.** The Company will review the detailed evaluation methodology submitted by the selected evaluation contractor for consistency with the Evaluation Advisory Group guidelines, the requirement to maintain a 90% confidence interval within +/- 10 % precision and the overall need to identify and mitigate threats to reliability of the results. The evaluation contractor will be required to ensure data reliability to the greatest practical extent, including methods for minimizing

[5] The second part pertains to net-to-gross analysis.

systematic and random error and techniques for reducing uncertainty introduced by necessary assumptions and adjustments to the data.

Reporting

Central Hudson plans to provide the Commission with quarterly reports on the progress of program implementation. These reports will include information on actual expenses, customer participation, and savings realized compared to annual budgets and goals. These reports will also include information about ongoing program evaluation efforts. Each quarterly report will be submitted to the Commission approximately 45 days following the end of the calendar quarter.

In addition to quarterly reporting, the Company proposes to submit an annual report to the Commission for the purpose of updating its proposed budgets and goals for the coming year informed by evaluation findings, customer response to program services, and other relevant market intelligence. The proposed budget to be included in this annual update will reflect any under or over-spending from the prior year. Each annual report will be submitted to the Commission approximately 90 days following the end of the calendar year.

The specific categories of information included in the report include:

- Program Planning & Administrative Expenditures, year to date
- Program Marketing Expenditures, year to date
- Customer Incentive Expenditures, year to date
- Program Implementation Expenditures, year to date
- Evaluation & Market Research Expenditures, year to date
- Total Expenditures, year to date
- Program Year Budget, year to date
- Annual Budget
- Number of Rebates (or Participants), year to date
- Participation Goal, year to date
- Annual Participant Goal for Program Year
- Total Savings (kWh, kW, Therms), year to date
- Savings Goal, year to date
- Annual Savings Goals for Program Year