



**New Jersey's Clean Energy Program  
2009 Program Descriptions and Budget**

**Commercial & Industrial  
Energy Efficiency Programs  
Managed by TRC as C&I Market Manager**



**2009 Program & Budget Filing  
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# New Jersey’s Clean Energy Program 2009 Program Descriptions and Budget

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# **New Jersey's Clean Energy Program 2009 C&I Program Descriptions and Budget**

## **Introduction**

This 2009 Filing provides program descriptions and budgets for programs managed by TRC, the Commercial and Industrial (C&I) Energy Efficiency Market Manager who took over management of the C&I Programs from the seven electric and natural gas utilities effective April 1, 2007.

The following are program descriptions, marketing plans and program budgets for 2009. Included in the program descriptions are annual goals for each program and planned program implementation activities.

**Appendix A** - 2009 12-Month Marketing Activity Plan

**Appendix B** – 2009 Clean Energy Conference

**Appendix C** - C&I Market Manager Budgets

**Appendix D** - Performance Incentives

## **2009 C&I Construction Program - Energy Efficient Construction “New Jersey SmartStart Buildings®”**

### **Description**

The Commercial & Industrial (C&I) Energy Efficient Construction Program, which is marketed as *New Jersey SmartStart Buildings*, is the umbrella name for three individual program components for targeted commercial and industrial market segments: 1) New Construction, 2) Retrofit, and 3) K-12 Schools (collectively “*SmartStart Programs*” or “*Programs*”). The Programs are designed to:

- Capture lost opportunities for energy efficiency savings that occur during customer-initiated construction events (i.e., when customers normally construct buildings or purchase building systems equipment).
- Achieve market transformation by helping customers and designers make energy efficient equipment specification, building/system design, lighting design, and commissioning part of standard business practices.
- Stimulate commercial and industrial customer investments in energy efficiency measures.
- Facilitate effective implementation of New Jersey’s new commercial energy code as well as future upgrades to that code.

The *SmartStart* programs have been designed to address key market barriers to energy efficient building construction and design on the part of developers, designers, engineers, and contractors including:

- Unfamiliarity or uncertainty with energy efficient building technologies and designs;
- Bias toward lower first cost versus operating costs;
- Compressed time schedules for design and construction;
- Aversion to perceived risk-taking involved with specifying technologies less familiar to the local design community, despite the proven reliability of efficient technologies and designs; and,
- Incentive structures and priorities for engineers, designers and contractors, which often do not align with energy efficiency considerations.

The Programs employ a comprehensive set of offerings and strategies to address these market barriers noted above, and to subsequently achieve market transformation in equipment specification, building/system design and lighting design. These include:

- Program emphasis on customer-initiated construction and equipment replacement events that are a normal part of their business practice.
- Coordinated and consistent marketing to commercial and industrial customers, especially large and centralized players, such as national/regional accounts, major developers, etc.
- Consistent efficiency and incentive levels for efficient electric and gas equipment and design practices to permanently raise efficiency levels.

- Prescriptive incentives for pre-identified energy-efficient equipment and custom measure incentives for more complex and aggressive measures to permanently raise the efficiency levels of standard equipment.
- Design support and technical assistance for developers and their design teams for new construction and renovation projects.
- Specialized technical assistance for small commercial customers and educational institutions.
- Technical support for newly enacted commercial energy code, including training in energy code requirements.

## **Target Markets and Eligibility**

The *SmartStart* Program targets commercial, educational, governmental/institutional, industrial, and agricultural customers engaged in customer-initiated construction events including public schools construction, other new building construction within designated Smart Growth areas, renovations, remodeling, equipment replacement, and manufacturing process improvements. The Program offers incentives and technical support for both existing buildings and new construction. To be eligible, new construction projects must be located within Smart Growth areas as defined by maps found at <http://www.nj.gov/dca/divisions/osg/docs/smartgrowthareamap.pdf> and described in NJAC 14:3-8.2. In addition, the Program offers incentives and technical support for new construction in areas where the cost of a service extension may be allowed, as provided for in NJAC 14:3-8.8. “Exemptions from cost limits on areas not designated for growth” as these rules now specify or as they may be amended in the future. In addition, the Program may be used to address economic development opportunities and transmission and distribution system constraints.

Applicants to the Program must be contributors to the Societal Benefits Charge fund.

## **Program Offerings and Customer Incentives for all C&I Programs**

The Programs will include the following program offerings for the various market segments:

- Prescriptive Efficiency Measure Rebates that provide fixed incentives for energy efficiency measures. Incentives are based on incremental costs (i.e., the additional cost above baseline equipment), in consideration of market barriers, changes in baselines over time and market transformation objectives. Eligible electric measures include chillers, lighting fixtures, lamps and controls, unitary HVAC, motors, variable frequency drives, and ground source heat pumps. Eligible natural gas measures include gas cooling, furnaces, boilers and water heating equipment.
- Custom Measure Incentives for more complex and aggressive efficiency measures. Incentives are based on incremental equipment and labor costs, in consideration of market barriers, changes in baselines over time and market transformation objectives. Eligible electric and gas measures include lighting systems, HVAC systems, motor systems, large boiler systems, gas-engine driven chillers and other non-prescriptive measures proposed by the customer.

- Multiple Measures Bonus for the installation of multiple eligible gas and electric energy efficiency measures (i.e., two or more of the following equipment types – lighting equipment and controls, unitary HVAC, chillers, electric and gas space heating, gas water heating, motors, and/or variable speed drives). The Multiple Measures Bonus is based on the total equipment incentives but is not to exceed the smallest individual equipment incentive for the project.
- Technical Assistance and Oversight to help customers evaluate energy efficiency options, utilize program offerings and services, and effectively use performance-contracting services. In addition, technical assistance and incentives targeted to small commercial customers will be provided.
- Energy Code Technical Assistance to help customer and trade allies understand the requirements of the state’s new commercial energy code, and assist in building the technical foundations for possible future energy code upgrades (e.g., sharing of research results, program experience and technical support). These activities are designed to “lock-in” efficiency gains from the program and to lay the groundwork for future market transformation.

Customers should submit an Application for the type of equipment they have chosen to install. The application should be accompanied by a related worksheet, where applicable, and a manufacturer's specification sheet for the selected equipment. (Program representatives will then review the application package and approve it, reject it, and/or advise of upgrades to equipment that will save energy costs and/or increase the incentives.)

## **New Construction**

This Program component offers incentives and technical support for new construction projects within designated Smart Growth areas as defined in NJAC 14:3-8.2 or in areas where the cost of a service extension may be allowed as provided for in NJAC 14:3-8.8. “Exemptions from cost limits on areas not designated for growth” as these rules now specify or as they may be amended in the future. In addition, it offers incentives and technical support for construction specified in the Board Orders “In the matter of the New Jersey SmartStart Buildings Programs; Adoption of Revised Smart Growth Policy and Exemption Process to Allow Replacement Building for Existing Structures” signed April 3, 2006 and for any construction specifically allowed by Board Order outside of designated Smart Growth areas.

**Incentives for new construction are available only for projects in areas designated for growth in the NJ State Development and Redevelopment Plan.**

**Smart Growth Eligibility:** Customers or their trade allies can assess if a location is in a designated growth area by using a two-step process. First, use the Smart Growth Locator available from the HMFA website: [http://sgl.state.nj.us/hmfa/hmfa\\_locator.htm](http://sgl.state.nj.us/hmfa/hmfa_locator.htm) to locate the property. Second, check the State Plan Quad PDF files available from <http://nj.gov/dca/osg/resources/maps/quadmaps.shtml> to determine whether it is in a designated growth area.

The Smart Growth policies will be implemented consistent with Board Orders as described more fully in the C&I Operational Procedure Manual.

Design incentives and support, including building simulation, are available to architects and engineers to encourage the consideration and use of integrated design approaches that provide additional, synergistic energy savings. The design incentives cover a portion of the incremental cost for additional energy efficient design services over the base cost of building design.

## **Schools**

The Schools component of the Program is offered to K-12 public schools throughout New Jersey (not limited to the Smart Growth and “Designated growth areas”) and provides the following incentives and technical assistance:

- Incentives and technical support for commissioning services for qualified new K-12 public school construction of facilities greater than 50,000 square feet.
- Assistance to ensure that all schools take full advantage of existing program offerings and incentives, as well as technical assistance regarding the energy efficiency requirements of LEED.
- No incentives are currently provided to offset costs associated with LEED registration.
- Financial incentives are provided for: a) the technical studies on a cost shared basis and b) for qualified equipment.

## **Retrofit**

The Retrofit component is offered to all C&I customers and provides incentives for replacing standard equipment with high efficiency alternatives. The program offers a comprehensive set of incentives for following qualifying equipment:

- Qualifying Equipment:
  - Electric Chillers
  - Natural Gas Chillers
  - Unitary HVAC (Heating, Ventilating, Air Conditioning) Systems
  - Ground Source Heat Pumps (Geothermal)
  - Gas Fired Boilers
  - Gas Furnaces
  - Variable Frequency Drives
  - Gas Fired Water Heating
  - Gas Fired Water Booster Heating
  - Premium Efficiency Motors
  - Compressed Air Systems
  - Prescriptive Lighting
  - Performance Based Lighting
  - Multiple Measure Bonus

- *Chiller Optimization Incentive* is designed to (a) capture potential additional savings available at the time of a chiller replacement or conversion to a new refrigerant, and (b) help lay the foundation for market-based comprehensive treatment of major HVAC replacement projects. By examining ways to optimize the efficiency of the chiller system in relation to its distribution systems (pumps, fans, ducts, pipes, controls, etc.) while simultaneously reducing other building cooling loads (such as lighting), it is often possible to reduce the size (and thus cost and peak demand) of the replacement chiller(s). Additional benefits can include a better performing building and improved savings from the ancillary efficiency measures.

The incentive is targeted at C&I customers with chiller plants of 500 tons or more that are in line for replacement, conversion, or in need of additional chiller capacity. Program offerings include: Technical Assistance for studies to identify potential savings and incentives for chiller replacements, incentives for lighting system improvements, and auxiliary enhancements, such as fans, pumps, motors, ducts, pipes, controls, etc.

- *Compressed Air* system Incentives are designed to capture significant energy savings from compressed air system optimization in industrial facilities containing significant compressed air systems (over 100 hp). These customers encompass many key New Jersey industries including plastics, chemicals, paper products, high technology, and pharmaceuticals. The focus is on the efficiency of all compressor system elements, including compressors, auxiliaries, controls, distribution, end-use, and operation and maintenance. As customer and contractor awareness and market demand build, the Program will adjust incentives for studies to maintain only the levels necessary to produce desired levels of market response.

#### Regional and National Initiatives

- *New Jersey SmartStart Buildings* has, and will continue to support efforts to upgrade efficiency standards and state building codes. Activities include technical support, dissemination of information, sponsorship of conferences/workshops on codes and standards, tracking of activities and monitoring developments, and review and modification of program designs to integrate changes to the standards and codes.

#### **C&I Construction Program Incentives**

The table below lists existing 2008 statewide incentives for the New Construction, Schools and Retrofit program components and, where noted, changes that will take place for 2009. The incentives vary by size, technology and efficiency level and will be paid based on specific eligibility requirements. The program offers both design support incentives and custom measure incentives. Custom measure incentives can cover up to 80% of qualifying measure's incremental cost, or buy-down to 2-year payback, whichever is less.

<b>Technology Classification</b>	<b>2008 Current Incentive</b>	<b>Proposed 2009 Incentive</b>
<b>Design Support Incentives:</b>		
Pre-design planning session	\$1,000	No Change
Design simulation and screening	\$5,000 or more, depending on the size of the building, or service may be provided by Market Manager	No Change
Incorporation of energy efficiency measures into the Final Design	\$5,000 depending on the measures included (\$2,500 for lighting, \$2,000 for HVAC, \$500 for motors)	No Change
<b>Custom Measure Incentives:</b>		
Measures not covered by the prescriptive incentive tables	Generally, up to 80% of eligible qualifying measure's incremental cost or a buy down to a 2 year payback, whichever is less. To be eligible for incentives, these projects must first pass several 'cost-effectiveness' criteria.	No Change
<b>Qualifying Equipment Incentives: (no incentive shall exceed the non-installed cost of the measure)</b>		
<b>Electric Chillers:</b>		
<i>Note A - See application for changes in efficiency requirements to comply with ASHRAE 90.1-2004</i>		
Water Cooled Chillers	\$12 - \$170 per ton depending on size and efficiency	No Change
Air Cooled Chillers	\$8 - \$52 per ton depending on size and efficiency	No Change
<b>Natural Gas Chillers:</b>		<b><i>Refer to Note A above</i></b>
Gas Absorption Chillers	1.1 full load or part load Coefficient of Performance (COP)	No Change
< 100 tons	Up to \$450 per ton	No Change
100 to 400 tons	Up to \$230 per ton	No Change
> 400 tons	Up to \$185 per ton	No Change
Gas Engine Driven Chillers	Treated under Custom measure path (1.1 full or part load COP)	No Change
Desiccant Systems	Up to \$1.00 per cfm (gas or electric)	No Change

<b>Technology Classification</b>	<b>2008 Current Incentive</b>	<b>Proposed 2009 Incentive</b>
<b>Unitary HVAC Systems:</b>		<i>Refer to Note A above</i>
Unitary AC and Split Systems		No Change
< 5.4 tons	14.0 SEER, Up to \$92/ton	
≥ 5.4 to < 11.25 tons	11.5 EER, Up to \$73/ton	
≥ 11.25 to < 20 tons	11.5 EER, Up to \$79/ton	
≥ 20 to 30 tons	10.5 EER, Up to \$79/ton	
Air to Air Heat Pumps		No Change
< 5.4 tons	≥ 14.0 SEER & 7.8 HSPF, Up to \$92/ton	
≥ 5.4 to < 11.25 tons	11.5 EER, Up to \$73/ton	
≥ 11.25 to < 20 tons	11.5 EER, Up to \$79/ton	
≥ 20 to 30 tons	10.5 EER, Up to \$79/ton	
Packaged Terminal AC & HP	Up to \$65 per ton	No Change
< 9,000 BTUH	12.0 EER, Up to \$65/ton	
≥ 9,000 to 12,000 BTUH	11.0 EER, Up to \$65/ton	
> 12,000 BTUH	10.0 EER, Up to \$65/ton	
Dual Enthalpy Economizers	All Up to \$250/unit	No Change
Central DX AC Systems	>30 to 63 tons, Up to \$40 per ton	No Change
≥ 9.5 EER	> 63 tons, Up to \$72 per ton	
Water Source Heat Pumps	Up to \$81/ton for qualifying equipment	No Change
<b>Ground Source Heat Pumps:</b>		<i>Refer to Note A above</i>
Open Loop & Closed Loop ≥ 16 EER	Up to \$370 per ton, Energy Star rated equipment only	No Change
<b>Gas Fired Boilers:</b>		
< 300 MBH ≥ 85% AFUE	\$2.00 per MBH but not less than \$300 per unit	No Change
300 MBH - 1500 MBH ≥ 85% AFUE hot water boilers ≥ 84% AFUE steam boilers	Up to \$1.75 per MBH	No Change
> 1500 MBH - 4000 MBH ≥ 84% AFUE for hot water boilers ≥ 83% AFUE for steam boilers	Up to \$1.00 per MBH	No Change
> 400 MBH	Treated under Customer Measure Path	No Change

Technology Classification	2008 Current Incentive	Proposed 2009 Incentive																
<b>Gas Furnaces</b>																		
≥ 90% AFUE	Up to \$300 per furnace	No Change																
<b>Variable Frequency Drives (HVAC):</b>																		
Variable Air Volume (add on to existing VAV HVAC systems only)	\$65 - \$155 per hp	No Change																
Chilled Water Pumps	Up to \$60 per hp	No Change																
Air Compressors with VFD's	Incentives will be paid as a Prescriptive Measure based on specific eligibility requirements. Available incentives are to be paid in accordance with the information below: <table border="0" data-bbox="630 856 1089 1184"> <thead> <tr> <th data-bbox="630 856 857 890"><b>Installed HP</b></th> <th data-bbox="857 856 1089 890"><b>Incentive</b></th> </tr> </thead> <tbody> <tr> <td data-bbox="630 890 857 926">25 to 29</td> <td data-bbox="857 890 1089 926">Up to \$5,250</td> </tr> <tr> <td data-bbox="630 926 857 961">30 to 39</td> <td data-bbox="857 926 1089 961">Up to \$6,000</td> </tr> <tr> <td data-bbox="630 961 857 997">40 to 49</td> <td data-bbox="857 961 1089 997">Up to \$7,200</td> </tr> <tr> <td data-bbox="630 997 857 1033">50 to 59</td> <td data-bbox="857 997 1089 1033">Up to \$8,000</td> </tr> <tr> <td data-bbox="630 1033 857 1068">60 to 199</td> <td data-bbox="857 1033 1089 1068">Up to \$9,000</td> </tr> <tr> <td data-bbox="630 1068 857 1104">200 to 249</td> <td data-bbox="857 1068 1089 1104">Up to \$10,000</td> </tr> <tr> <td data-bbox="630 1104 857 1140">&gt; 250</td> <td data-bbox="857 1104 1089 1140">Up to \$12,500</td> </tr> </tbody> </table> Refer to Application and/or website for standards that apply to these measures	<b>Installed HP</b>	<b>Incentive</b>	25 to 29	Up to \$5,250	30 to 39	Up to \$6,000	40 to 49	Up to \$7,200	50 to 59	Up to \$8,000	60 to 199	Up to \$9,000	200 to 249	Up to \$10,000	> 250	Up to \$12,500	No Change
<b>Installed HP</b>	<b>Incentive</b>																	
25 to 29	Up to \$5,250																	
30 to 39	Up to \$6,000																	
40 to 49	Up to \$7,200																	
50 to 59	Up to \$8,000																	
60 to 199	Up to \$9,000																	
200 to 249	Up to \$10,000																	
> 250	Up to \$12,500																	

<b>Technology Classification</b>	<b>2008 Current Incentive</b>	<b>Proposed 2009 Incentive</b>
<b>Gas Fired Water Heating:</b>		
≤ 50 gallons ≥ 0.62 energy factor	Up to \$50 per water heater	No Change
> 50 gallons; < 300 MBH ≥ 85% AFUE	Up to \$2.00 per MBH, but not less than \$50/unit	No Change
300 MBH - 1500 MBH ≥ 85% AFUE	Up to \$1.75 per MBH	No Change
>1500 MBH - 4000 MBH ≥ 84% AFUE	Up to \$1.00 per MBH	No Change
> 400 MBH	Treated under Custom Measure Path	No Change
<b>Gas Fired Water Booster Heaters:</b>		
≤ 100 MBH	Up to \$17 per MBH	No Change
> 100 MBH	Up to \$35 per MBH	No Change
<b>Premium Efficiency Motors:</b>		
Three phase motors	Follows the Regional MotorUp Program Incentive Schedule (below)	No Change

**Regional MotorUp Program Incentive Schedule, Incentives for Three Phase Motors:**

<b>Qualifying Premium Motor Efficiencies and Incentives</b>									
<b>Premium Motor Incentives</b>					<b>Premium Motor Incentives</b>				
<b>Open Drip-Proof (ODP)</b>					<b>Totally Enclosed Fan-Cooled (TEFC)</b>				
<b>Size HP</b>	<b>Speed (RPM)</b>			<b>Custom Incentive (\$/Motor)</b>	<b>Size HP</b>	<b>Speed (RPM)</b>			<b>Custom Incentive (\$/Motor)</b>
	<b>1200</b>	<b>1800</b>	<b>3600</b>			<b>1200</b>	<b>1800</b>	<b>3600</b>	
	<b>NEMA Nominal Efficiency</b>					<b>NEMA Nominal Efficiency</b>			
1	82.5%	85.5%	77.0%	\$45	1	82.5%	85.5%	77.0%	\$50
1.5	86.5%	86.5%	84.0%	\$45	1.5	87.5%	86.5%	84.0%	\$50
2	87.5%	86.5%	85.5%	\$54	2	88.5%	86.5%	85.5%	\$60
3	88.5%	89.5%	85.5%	\$54	3	89.5%	89.5%	86.5%	\$60
5	89.5%	89.5%	86.5%	\$54	5	89.5%	89.5%	88.5%	\$60
7.5	90.2%	91.0%	88.5%	\$81	7.5	91.0%	91.7%	89.5%	\$90
10	91.7%	91.7%	89.5%	\$90	10	91.0%	91.7%	90.2%	\$100
15	91.7%	93.0%	90.2%	\$104	15	91.7%	92.4%	91.0%	\$115
20	92.4%	93.0%	91.0%	\$113	20	91.7%	93.0%	91.0%	\$125
25	93.0%	93.6%	91.7%	\$117	25	93.0%	93.6%	91.7%	\$130
30	93.6%	94.1%	91.7%	\$135	30	93.0%	93.6%	91.7%	\$150
40	94.1%	94.1%	92.4%	\$162	40	94.1%	94.1%	92.4%	\$180
50	94.1%	94.5%	93.0%	\$198	50	94.1%	94.5%	93.0%	\$220
60	94.5%	95.0%	93.6%	\$234	60	94.5%	95.0%	93.6%	\$260
75	94.5%	95.0%	93.6%	\$270	75	94.5%	95.4%	93.6%	\$300
100	95.0%	95.4%	93.6%	\$360	100	95.0%	95.4%	94.1%	\$400
125	95.0%	95.4%	94.1%	\$540	125	95.0%	95.4%	95.0%	\$600
150	95.4%	95.8%	94.1%	\$630	150	95.8%	95.8%	95.0%	\$700
200	95.4%	95.8%	95.0%	\$630	200	95.8%	96.2%	95.4%	\$700



Technology Classification	2008 Current Incentive	Proposed 2009 Incentive
Hard-wired compact fluorescent surface mounted fixtures (New Fixtures Only, must be pin based technology with THD of < 33% and BF > 0.9)	Up to \$25 per 1 lamp fixture Up to \$30 per 2 or more lamp fixtures	No Change
Hard-wired compact fluorescent recessed fixtures (New Fixtures Only, must be pin based technology with THD of < 33% and BF > 0.9)	Up to \$25 per 1 lamp fixture Up to \$30 per 2 or more lamp fixtures	No Change
Metal Halide w/ pulse start ballast, for fixtures > 150 watts	Up to \$45 per fixture, includes parking lot lighting	\$25 per fixture
T-5 and T-8 Fixtures replacing HID, 250 watt or greater T-12 fluorescent, or 250 watt or greater incandescent fixtures	<p>Incentives will be paid as a Prescriptive Measure based on specific eligibility requirements.</p> <ul style="list-style-type: none"> <li>• T-5 or T-8 fluorescent fixtures replacing 1000 Watt or greater HID, T-12 fluorescent, or incandescent fixtures: \$284.00 per fixture removed.</li> <li>• T-5 or T-8 fluorescent fixtures replacing 400 - 999 Watt HID, T-12 fluorescent, or incandescent fixture: \$100.00 per fixture removed.</li> <li>• T-5 or T-8 fluorescent fixtures replacing 250 - 399 Watt HID, T-12 fluorescent, or incandescent fixture: \$50.00 per fixture removed.</li> </ul>	No Change



<b>Technology Classification</b>	<b>2008 Current Incentive</b>	<b>Proposed 2009 Incentive</b>
Low Bay LED Parking Lot Lighting	\$43 per fixture	No Change
LED Traffic Signal Lamps (conversion of existing intersections only)		
8" Lamp	Up to \$20 per 8" lamp (red & green only)	\$0 - No incentive offered
12" Lamp	Up to \$35 per 12" lamp (red & green only)	\$0 - No incentive offered
LED Pedestrian Signal Lamps (conversion of existing intersections only)	Up to \$20 per fixture	\$0 - No incentive offered
<b>Lighting Controls:</b>		
Occupancy Sensors (Turning fixtures off in Existing facilities only)		
Wall Mounted	Up to \$20 per control	No Change
Remote Mounted (e.g., ceiling)	Up to \$35 per control	No Change
Day Lighting Dimmers - All facilities		
Fluorescent Fixtures	Up to \$25 per fixture controlled	No Change
HID or Fluorescent Hi-Bay controls	Up to \$75 per fixture controlled (HID only)	No Change
Hi-Low Controls - All facilities:		
Fluorescent Fixtures	Up to \$25 per fixture controlled	No Change
HID or Fluorescent Hi-Bay	Up to \$75 per fixture controlled (HID or Fluorescent Hi-Bay)	No Change

Technology Classification	2008 Current Incentive	Proposed 2009 Incentive
<b>Performance Based Lighting:</b>		
<p>Performance Based Lighting incentives for indoor and outdoor installations (attached to building) - New Construction and Complete Renovation</p> <p>Complete renovations defined as "100% fixture replacement for the space involved".</p>	<p>Up to \$1.00 per watt-per-square foot below baseline which is 20% below (more efficient) code; incentive cap up to \$30/fixture.</p> <p>Existing buildings, regardless of connected load, are eligible for Prescriptive Lighting incentives and are not eligible for Performance incentives, unless a Complete Renovation of the lighting system is undertaken. Incentive cap up to \$30/fixture</p>	<p>No Change</p> <p>No Change</p>
<p>Performance Based Lighting incentives for indoor/outdoor installations (attached to building) - Existing Construction</p>	<p>This classification will be processed under prescriptive lighting incentives. For projects that require Complete Renovation please refer to previous section</p>	<p>No Change</p>
<b>Multiple Measure Bonus:</b>		
	<p>10% of the total equipment incentives for the subject project, but not to exceed the smallest individual equipment incentive for the project.</p>	<p>No Change</p>

Note: The incentives identified above may be modified with the approval of the Office of Clean Energy.

## Delivery Methods

The C&I Energy Efficient Construction program will be managed by TRC as the Commercial & Industrial Market Manager (“Market Manager”). The Program will be offered on a consistent program design and implementation basis to ensure consistency across the state.

As new technologies are introduced and prices for measures change, sometimes in response to program offerings, program managers will continuously monitor technologies and costs and adjust program incentives accordingly. The Market Manager will propose adjustments to program offerings based on program experience, the results of any evaluations, program and market studies as well as other state/regional market research, and current pilot/demonstration projects.

In addition to revising incentives as shown in the previous table, the following are several proposed changes to Program delivery for 2009:

- **Increase the incentive Cap to \$500,000 per customer, per fuel, per calendar year.** This incentive cap relates to the following SmartStart Programs: Retrofit, New Construction and Schools. The incentive cap for Pay for Performance will be significantly higher. The definition of a “customer” remains unchanged. A customer is represented by a utility account.
- **TRC proposes a modification of the Pre-approval process, including:**
  - The elimination of the Registration form. All Terms and Conditions will be located on the Application forms.
  - The program will accept equipment *purchases* (**not installations**) up to 12 months prior to submittal of an application. It will be noted on all applications and the website that equipment purchased prior to receipt of an approval letter is done at the customer’s/applicant’s risk.
  - Pre-inspection requirements will remain in effect, where applicable
- **Change to requirement for Performance Lighting to beat ASHRAE 90.1-2004 to 5% from 20%.** In 2008, the Clean Energy Program made ASHRAE 90.1-2004 the commercial/industrial Code for HVAC and lighting. Previously the Code was based on ASHRAE 90.1-1999. The 2004 Code, on average, tightened up the allowable UPD (watts per square foot) in an area by about 30%. For example, under the 1999 Code an office space was allowed 1.3 watts/square foot. Under the new 2004 Code, an office space is allowed 1.0 watts/square foot.
  - The Performance Lighting Program, as originally designed, required a user to install lighting equipment that performed 20% better than the 1999 Code requirements. For an office space, that required the customer to meet a level 1.04 watts/square foot or better, to qualify for a Smart Start incentive. Under the current rules, the customer must now install equipment that meets a level of 0.8 watts/square foot to qualify. The new code is 20% higher than the level for which incentives were offered in 2007. This higher level is creating a serious hurdle for

customers seeking to achieve energy savings at levels above the new requirements. Customers who are evaluating improvements over Code are being discouraged by the lack of incentives. This is impeding their movement to higher levels that would achieve significant energy savings for the State of New Jersey.

- Our recommendation is to reduce the incentive eligibility level to 5% above the ASHRAE 90.1-2004 guidelines. This will motivate customers to “stretch”, achieve higher levels of energy savings and provide the appropriate incentives to encourage this activity.
- **Eliminate the stand alone Combined Heat & Power (CHP) Program.** TRC has proposed the elimination of a stand alone Combined Heat & Power Program and recommends that the elements of this Clean Energy Program be folded into the new Pay for Performance Program. The goal is to make CHP part of a comprehensive, whole building approach to energy efficiency in existing commercial and industrial buildings. Pay for Performance projects that incorporate CHP will be eligible for up to an additional \$1 million incentive. The annual solicitation will be eliminated, and customers will be able to participate in this program year round, funding permitted. Many of the elements of the existing CHP Program will remain in effect, however, there may be additional requirements which will be outlined upon completion of design of the Pay for Performance program.

#### **Goals:**

- New Construction and Schools            275 approved applications
- Existing Construction                      2,000 completed jobs

#### **Quality Control Provisions**

Documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all C&I program participants. All applications are reviewed upon receipt to verify adherence to eligibility requirements. In addition, all technical information submitted in support of the application is reviewed to confirm measure qualification and to verify the incentive calculation. Applicant supplied information and Market Manager performed incentive calculations are entered into the database, and files are created for all documents and ongoing project correspondence.

A minimum of 10% of all incentive applications are selected for pre-installation and/or post-installation inspection by a Market Manager inspector (or one of its subcontractors). Inspections include a site visit to verify customer eligibility and energy efficient measure technical specifications that result in a verification of the incentive calculation. A field inspection report is prepared and maintained in the project file for future verification.

#### **Budget**

A detailed budget for this program for 2009 is attached in Appendix C.

**Minimum Requirements for Program Administration**

Not Applicable.

## **Local Government Energy Audit Program**

### **Description:**

The Program is designed to provide incentive to subsidize the cost of an energy audit for facilities owned by municipalities or other local government agencies (Agency). The program will be implemented as follows:

1. New Jersey Department of the Treasury has established, based on its review of the proposals that were received in response to its RFP, a list of qualified contractors that are available to contract directly with municipal or other local governmental agencies to provide energy audit services. The list of contractors includes hourly rates for the provision of energy audit services.
2. The Agency will request proposals from contractors on the approved Treasury list. The solicitation will include a description of the facilities to be audited.
3. Contractors will provide the Agency an estimate of the cost to perform the energy audit based upon the hourly rates provided in response to the RFP. The estimate shall be on a fixed fee basis only. The estimate shall not be, in whole or in part, contingent on any other factors such as shared savings, commissions, or percentages of project costs.
4. The Agency will submit a request for reimbursement for a portion of the estimated cost of the energy audit to the Office of Clean Energy's C&I Market Manager, TRC. The Program may provide incentives in two phases. The Phase I incentive will cover 75% of the audit fee. The Phase II incentive, covering 25% of the audit fee, will be provided upon installation of energy efficiency upgrades identified in the audit. In order to receive the Phase II audit fee, the net cost of the installation, after any New Jersey Clean Energy Program incentives, must be equal to or greater than 25% of the total audit fee.
5. The Market Manager will review requests for funding, including scope and cost, and issue incentive commitment letters to applicants that meet program requirements provided that sufficient funding remains available.
6. The Agency will contract directly with the firm they have selected to perform the energy audit.
7. Upon completion of the audit, the Market Manager will review the energy audit report and, provided that all program requirements are met, the Program will reimburse the Agency for a portion of the cost of the energy audit.

Participants in the Local Government Audit Program will be able to take advantage of incentives available under existing New Jersey Clean Energy incentive programs to implement specific measures recommended in the energy audit.

The Local Government Audit Program will provide incentives up to \$100,000 per calendar year, per Agency to subsidize the cost of the energy audit.

## **Target Markets & Eligibility**

This program offers qualifying municipalities and other government agencies incentives to subsidize the cost of having an energy audit of their facilities performed.

## **Goals and Energy Savings:**

Goals:

Review and Process 400 Audits (Audit = One Building).

Energy Savings:

Not applicable

## **Quality Control Provisions**

Documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all Local Government Energy Audit Program participants. All applications are reviewed upon receipt to verify adherence to eligibility requirements. Technical information in the energy audit is also verified. Applicant supplied information is entered into the database, and files are created for all documents and ongoing project correspondence

## **Delivery Methods**

The Local Government Energy Audit Program will be managed by TRC as the C&I Market Manager. The Market Manager will work to ensure consistency in program design and implementation across the state.

## **Budget**

The statewide budget for this program for 2009 is attached in Appendix C.

## **Direct Install Program**

### **Background**

Under the Direct Install Program, the unique needs of New Jersey's small business community will be addressed.

This program will be implemented as a pilot under the New Jersey Office of Clean Energy's suite of Commercial & Industrial Programs presently being managed by its competitively selected Market Manager — TRC. The qualifications of TRC and its management, supervisory, and other key personnel were significant factors in TRC's selection as Market Manager. TRC's background and qualifications, including staff resumes, are described in Section 3 of its original proposal in response to Treasury's RFP 06-X-38052. As of the drafting of this Filing, TRC is awaiting approval to begin the design of this program.

### **Program Description**

The Direct Install Program, once designed, will offer eligible small business customers the opportunity to retrofit existing inefficient equipment with more energy efficient systems. Municipal and other local government agencies that have successfully participated in the Local Government Energy Audit Program shall also be eligible. The Program will provide turn-key services including technical assistance, direct installation, financial incentives, as well as education to encourage the early replacement of existing equipment with high efficiency alternatives, as well as the installation of new equipment. All energy using systems are eligible for improvements including lighting, controls, refrigeration, HVAC, motors, and variable speed drives. The Program will strive to include a comprehensive package of energy efficiency improvements in each customer's project.

### **Target Market and Eligibility**

Per the Energy Information Administration (EIA), commercial and industrial sector building energy use represents approximately 42% of the total energy consumption in New Jersey. The Direct Install Program will offer a targeted approach at addressing the smaller facilities within this sector.

The Direct Install Program will be open to all commercial and industrial customers with an average annual kW demand of 200 kW or less. This small business sector tends to have a historical reluctance or inability to fund energy efficiency improvements. In addition, their small size tends to exclude them as beneficiaries of services from other energy service providers.

TRC will pay particular attention during this pilot phase of the Program to ensure that Smart Growth Areas are well served by this program.

## Program Offerings and Incentives

The Direct Install Program will provide turn-key services and offers customers a single source of technical assistance, financial incentives and installation services. TRC envisions selecting multiple regional contractors via a Request for Proposal (RFP) process across the State to deliver installation and related services. Each contractor will bid on, and be selected to serve, a defined geographic region (e.g., county) of New Jersey. Selected contractors will focus on their pre-determined territory and be responsible for promotion of the program, program services, and reporting to TRC on a weekly, monthly and annual basis. TRC will develop a comprehensive listing of unit pricing for all eligible equipment. Eligible equipment categories will include but not be limited to:

- Super T8 and T5 Lamp and Ballast Retrofit
- LED Exit Signs
- Commercial CFL Fixtures
- Occupancy Sensors
- Low Voltage Programmable Thermostats
- ENERGY STAR Boilers and Furnaces (up to 300,000 Btuh)
- High Efficiency Cooling Systems
- High Efficiency Water Heating Equipment
- ENERGY STAR Products
- Refrigeration Measures
  - Refrigeration economizer
  - Evaporator fan motor controls
  - Vending miser controls
  - Door heater controls
  - Floating head pressure controls

Customer incentives will be offered to reduce the cost of installing energy efficient equipment and will be based on the total installed cost of the retrofits. Qualifying C&I customers will be eligible for incentives up to 80% of the installed cost of the approved project. Incentives will be paid to the installation contractor and the contractor will invoice the customer for the remaining balance of the installation.

Direct Install contractors will be responsible for the following program components:

1. Marketing to eligible customers (marketing materials to be approved by OCE)
2. Performing site visits and collecting all equipment and energy data, analyzing information and identifying opportunities for efficiency improvements, and making recommendations to the customer;
3. Presentation of comprehensive recommendations to the customer, including costs and savings estimates, and obtaining customer agreement to proceed with installation. The customer agreement will be a standard agreement approved by the Program;
4. Preparation and submission of completed customer rebate applications, including pre-implementation report to TRC for review and approval;

5. Installation of eligible measures per customer agreement, including all appropriate permitting;
6. Submission of post-implementation report, including payment request. TRC will review all post-implementation reports and either forward to OCE as approved for payment or send back to the contractor with questions or issues
7. Tracking and reporting on program activity including:
  - a. Customer name, address and contact person
  - b. Customer account number(s)
  - c. Project type (electric, gas, both)
  - d. Business type (SIC or NAICS code)
  - e. Inventory of equipment to be replaced, including quantity, type, location, hours of use
  - f. Estimates of energy (kWh &/or therms) and demand (kW) savings and total project costs
8. Proper disposal of all removed equipment.

## Program Goals

Direct Install Pilot Program goals will include the following:

- **Market Transformation:** Expand the awareness and knowledge of energy efficiency among small business owners. Promote the financial and environmental benefits of reducing energy consumption with emphasis on a comprehensive, whole-building approach.  
*Goal:* Expose up to 2,500 small businesses to the financial and environmental benefits of energy efficiency improvements.
- **Market Penetration/Cost Effectiveness:** Reach significant numbers of small commercial and industrial customers with comprehensive, cost effective scopes of work.  
*Goal:* Complete more than 1,000 installation projects across the State.
- **Achieve Energy Savings:** Maximize total energy (electric and gas) efficiency opportunities while maximizing the diversity of equipment installed in completed project.  
*Goal:* Annual savings equivalent to approximately 8,000,000 kWh
- **Expand the Contractor Network / Create Green Collar Jobs:** Expand the number of firms offering energy efficient installation services to small business customers. Program marketing, customer demand, and technical training opportunities will help to develop a network of installation contractors who can offer quality installation services and associated technical assistance.  
*Goal:* A network of contractors capable of serving all regions of the State.

## Program Deliverables

Direct Install will provide the following services:

1. Competitively select qualified regional contractors that can offer Program installation and technical services.
2. Provide review and approval services for all submitted pre-implementation reports, verifying all associated cost and savings information.
3. Provide review and approval services for all submitted post-implementation reports.

4. 100% quality control review of all completed projects, including a random 10% sampling of site inspections.

### **Implementation Phase:**

- Program Administration — to include the following services:
  - Development of a Direct Install Program Policy Manual. Revisions and updates will be provided as necessary.
  - Provide technical assistance via email and telephone
  - Provide interim Program Memos, as necessary, to clarify Program requirements
  - Review and approval of all submitted pre- and post-implementation reports
  - Site inspections of 10% random sample of projects
  - Program Management, including weekly, monthly, and annual reporting
- Program Incentives - \$9,680,000
- External Evaluation – To be provided by the OCE’s external program evaluation vendor.

### **Quality Control Provisions**

Documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all Direct Install Program participants. All applications are reviewed upon receipt to verify adherence to eligibility requirements. Applicant eligibility information is verified, along with all technical information in support of energy efficient measure qualification and incentive calculation. Applicant supplied information and program administrator performed incentive calculations are entered into the database, and files are created for all documents and ongoing project correspondence

### **Schedule**

TRC is prepared to begin the Design Phase immediately upon receiving notice-to-proceed and anticipates development of marketing and program material necessary for recruiting qualified contractors within 60-90 days. Program delivery will then take place over the course of one year. Exact delivery dates for each deliverable listed above will be established and reviewed by Board staff.

The Direct Install Program will be managed by TRC as the C&I Market Manager. The program will be offered on a consistent program design and implementation basis to ensure consistency across the State.

### **Budget**

A detailed budget for this program for 2009 is attached in Appendix C.

## **Pay for Performance**

### **Background**

Under the Pay for Performance Program approximately 30-40 businesses will be served through this innovative and comprehensive approach to market transformation. This program will initially be implemented under the New Jersey Office of Clean Energy's suite of Commercial & Industrial Programs presently being managed by its competitively selected Market Manager — TRC. The qualifications of TRC and its management, supervisory, and other key personnel were significant factors in TRC's selection as Market Manager. TRC's background and qualifications, including staff resumes, are described in Section 3 of its original proposal in response to Treasury's RFP 06-X-38052.

### **Program Description**

The C&I Pay for Performance Program will take a comprehensive, whole building approach to energy efficiency in existing commercial and industrial buildings. Similar to performance contracting programs offered in other states, this Program will link incentives directly to energy savings and shall include a measurement and verification (M&V) component to ensure that the estimated savings levels are achieved. This market-based program will rely on a network of Program Partners, selected through a Request for Qualifications process. Once approved, Partners will then provide technical services to program participants. Partners are required to strictly follow program policy but will work under contract to owners, acting as their "energy expert". Partners will be required to develop an Energy Reduction Plan for each project. The Energy Reduction Plan includes the whole-building technical analysis component of a traditional energy audit along with a financial plan for funding the energy efficiency improvements and a construction schedule for installation. A set minimum energy reduction goal will be required of all projects and will be based on an approved whole-building energy simulation. The achievement of energy reduction goals will be verified using post-retrofit billing data and EPA Portfolio Manager methodology. For building types that are not addressed by EPA's Benchmarking Tool, an alternative approach based on the Leadership in Energy and Environmental Design Existing Building (LEED) method will be followed.

### **Target Market and Eligibility**

Per the Energy Information Administration (EIA), commercial and industrial sector building energy use represents approximately 42% of the total energy consumption in New Jersey. The Pay for Performance Program offers a targeted approach for addressing the larger facilities within this sector.

The C&I Pay for Performance Program is open to existing commercial and industrial buildings with an average annual kW demand of more than 200 kW. In addition, any multifamily facility which does not meet the eligibility requirements of the New Jersey Clean Energy Home Performance Program will be eligible to participate in the Pay for Performance Program. Participants will be required to work with an approved Pay for Performance Partner to develop

the Energy Reduction Plan and facilitate installation of the recommended package of energy efficiency improvements. In order to receive the full suite of incentives offered in the Pay for Performance Program, the submitted Energy Reduction Plan must include a package of energy efficiency measures that achieve the minimum performance threshold or Energy Target (i.e., 20% of total building energy consumption). In addition, the Energy Reduction Plan must include a comprehensive mix of measures: lighting cannot make up more than 50% of the total projected savings.

Units of energy comparison used in performance threshold calculations will be determined during the program design stage. Options include source energy (used in EPA benchmarking) and energy cost (used by ASHRAE 90.1 Section 1 and appendix G, EPC Act Federal Tax Deductions, and LEED NC). Pre-approval of the Energy Reduction Plan is required for all projects, which may include a site inspection. Projects that cannot identify efficiency improvements that meet the minimum performance level will be referred to the appropriate SmartStart Buildings Program(s). The Energy Reduction Plan will also include a measurement and verification (M&V) plan for all recommended measures.

The Pay for Performance Program will offer two types of incentives which will be disbursed upon satisfactory completion of three Program milestones. The first incentive type is related to completion of the Energy Reduction Plan. The second incentive type is performance based and is related to the Installation of Recommended Measures. The performance-based incentive will be paid out in two phases – the first at the completion of installation of the recommended measures, the second upon submittal of an M&V report that verifies the level of savings achieved. These incentives are explained below in more detail.

### **Program Offerings and Incentives**

TRC currently provides administration and inspection services for the New York State Energy Research and Development Authority's (NYSERDA) Commercial and Industrial Performance Program (CIPP) and Multifamily Performance Program (MPP). CIPP offers commercial and industrial customers various levels of incentives based on the complexity and comprehensiveness of their proposed project. MPP provides an innovative whole-building approach to addressing energy efficiency improvements in multifamily buildings, including a minimum performance threshold of 20% of the buildings total source energy use. TRC has applied the experience from these award-winning programs to the development of a similar approach for commercial and industrial buildings in New Jersey through the Pay for Performance Program.

The initial Pay for Performance Program roll-out will focus on developing a network of Program Partners who can provide the technical, financial, and construction-related services necessary for completing the Energy Reduction Plan. Energy Service Companies (ESCO) deliver this full range of services as part of their business model and will be a likely group to approach first. In addition, one of the goals of this program will be to expand the network of energy efficiency firms that can provide these services in order to make this Program accessible for smaller commercial and industrial customers. This market-based approach is a key component of market transformation by creating "green collar" jobs and helping to develop the workforce necessary to achieve ambitious long-term energy savings targets. Firms interested in becoming Program

Partners will be required to submit case studies and resumes showing successful experience and expertise in C&I energy efficiency projects.

Program incentives will be performance-based and not specifically tied to the project cost or the recommended energy efficiency measures. Disassociating incentives from project cost is a key program design decision as it streamlines program administration by eliminating the collection of bid documents, construction contracts and change orders. This incentive structure also provides the benefit of allowing Program Partners to estimate and explain incentives to prospective participants as part of the program sales process. Program incentives will be capped not to exceed 50% of the total project cost.

Incentives, up to \$1,000,000 per electric and \$1,000,000 per gas utility account, (to be finalized per the final approved program design) will be released in phases upon satisfactory completion of each of three Program milestones, which are:

1. Submittal of a complete Energy Reduction Plan
  - a. Incentive based on facility square footage at approximately \$0.10/sq ft
  - b. Maximum incentive of \$50,000, minimum incentive of \$5,000
  - c. Projects that cannot identify efficiency improvements that meet the minimum performance level will be referred to the appropriate SmartStart Buildings Program.
  - d. Incentive not to exceed 50% of facility annual energy cost.
  - e. Incentive is contingent upon moving forward with construction.
2. Installation of all recommended measures per the Energy Reduction Plan
  - a. Incentive based on a percentage of total energy consumption (combined annual costs for electricity and natural gas)
3. Completion of M&V Report which reflects that the minimum performance threshold has been met or exceeded. This report will include verified consumption reductions based on one year of post construction energy use.

Incentive #1 – Energy Reduction Plan – This incentive will be developed to offset the cost of services associated with the development of the Energy Reduction Plan. This incentive will be based on the square footage of the building(s) and the complexity of the energy uses. TRC will analyze the relative complexity of conducting a whole building energy audit for various business types and develop a \$/sq ft value for several types, as appropriate. For example, the \$/sq ft incentive value for completing an Energy Reduction Plan for an office building might be lower than the value for a hospital. This incentive will also be capped at a set % of annual energy cost. This incentive cap will assist in limiting incentives for facilities with large square footage but very low energy intensity (e.g. warehouses).

Incentive #2a – Installation of Recommended Measures – This incentive will be based on a projected energy savings and designed to pay approximately one half of the total performance-based incentive. Pending final program design, a custom approach may be offered to large industrial customers whose annual energy costs are more heavily weighted to manufacturing processes. The preliminary performance-based incentives to be paid at completion of construction (to be finalized per approved Program design) are as follows (designed to be roughly 50% of the total performance-based incentive):

1. Electricity savings at \$0.10/kWh
2. Natural gas savings at \$1.00/therm

Savings projections will be calculated using calibrated energy simulation. The approach involves the following steps:

1. Develop whole building energy simulation using approved simulation tools. The list of approved tools will be based on the software requirements outlined in ASHRAE 90.1 Section 11 or Appendix G.
2. Calibrate simulation to match pre-retrofit utility bills
3. Model proposed improvements to obtain projected energy savings
4. Calculate percent energy reduction to demonstrate achievement of Energy Target.

Modeling methodology will be in general compliance with national programs such as LEED and EPAct Federal Tax Deductions for Commercial Buildings, which will allow taking advantage of the expertise of a growing number of engineering and consulting firms involved in these programs.

Incentive #2b – M&V Report – Upon submittal of an M&V Report that verifies that the level of savings actually achieved by the installed measures meets or exceeds the minimum performance threshold, the performance-based incentive will be released. The preliminary performance-based incentives (to be finalized per approved Program design) are as follows (designed to be roughly 50% of the total performance-based incentive):

1. Annual electricity savings at \$0.10/kWh
2. Annual natural gas savings at \$1.00/therm

The M&V Report will be based on the approved M&V plan as submitted as part of the Energy Reduction Plan and will provide an accurate verification of savings while keeping the costs associated with M&V at a reasonable level. Specifics of the M&V Protocols will be a critical component of the program and should be as simple as possible to reasonably verify savings while not overburdening the Partner or TRC. M&V Protocols will follow the International Performance Measurement & Verification Protocol (IPMVP). Option C - Whole Building would be the preferred M&V approach but the Program will allow for Options A – Partially Measured Retrofit Isolation, B – Retrofit Isolation, and D – Calibrated Simulation, as necessary. The M&V Report must demonstrate savings over at least one year of post-construction consumption. The post-construction period may be extended to up to two years.

To validate the savings and achievement of the Energy Target, the EPA Portfolio Manager may be used. For buildings not covered by EPA, the process used by LEED EB may be followed. The steps of this process are summarized below:

- Develop and document building energy baseline based on historical energy use data for the building. A simplified approach would be to average together three consecutive years of historical energy use data immediately prior to building enrollment in the program and use it as baseline. Alternatively, statistics for similar building types may be included in the baseline development.

- Document annual energy use during the post-retrofit period. Collect energy consumption data for the 12-month post-installation period. In certain cases, full year consumption may be extrapolated from partial data available.
- Calculate Percent Reduction of Energy Use as the difference between baseline and post-retrofit energy consumption as a percentage of the baseline energy consumption (baseline – post retrofit energy consumption / baseline).

Post-retrofit performance will be validated through site inspection, following the requirements of the EPA Guide for validating the ENERGY STAR label for commercial buildings.

Upon verified installation of all measures in the approved Energy Reduction Plan, 50% of the total performance-based incentive will be released. The remaining 50% of the performance-based incentive will be released upon completion of the M&V Report which reflects that the minimum performance threshold has been met or exceeded.

### **Advanced Measure Incentive – Combined Heat and Power**

Under the Pay for Performance Program, participants will be eligible to receive additional financial incentives for Combined Heat and Power (CHP) installations to further enhance energy efficiency in their buildings through on-site power generation with recovery and productive use of waste heat, and reducing existing and new demands to the electric power grid. By including CHP systems, participants will assist in reducing overall system peak demand, furthering the use of emerging technologies, reducing emissions and using distributed generation to provide reliability solutions for New Jersey. The following paragraphs describe the guidelines and criteria related to the 2008 CHP Program. *The Pay for Performance Program is still under development and the guidelines below related to the 2008 CHP may be modified to reflect the intent and goals of the Pay for Performance Program.*

#### *Equipment Eligibility*

To qualify for the incentive, customers must install equipment that is sized to meet all or a portion of their on-site load. Only new commercially available permanently installed generating equipment qualifies for incentives. The following items do not qualify for a CHP Incentive: used, refurbished, temporary, pilot, demonstration or back-up generation.

The CHP System must achieve an average annual fuel efficiency of at least 60%, based on total energy input and total utilized energy output. Mechanical energy may be included in the efficiency evaluation.

Waste heat utilization systems or other mechanical recovery systems are required. Even though waste heat systems are produced with many configurations, they all perform the same task of capturing waste heat energy in the radiator or exhaust systems of a generator and delivering it to a heat load or cooling load. The captured energy is used in heating processes, such as water heating, pasteurizing, product preheating, etc. New electric generation equipment which captures waste heat or energy from existing systems is also allowed.

An on-site power system should have the ability to island/disconnect from the utility in the event of substantial grid congestion or failure.

**Advanced Incentives for CHP Systems** *(in addition to Pay for Performance Incentives)*

Incentives vary based on CHP technology, type, project size and total project cost. Table 1 summarizes the qualifying technologies and available incentives.

TABLE 1: CHP TECHNOLOGY AND INCENTIVE LEVELS

<b>Eligible Technology<sup>(1)</sup></b>	<b>Incentive<sup>(2)</sup> (\$/Watt) (Up to \$1.0 Million)</b>	<b>Maximum % of Project Cost</b>	<b>Minimum System Size</b>
Level 1 •Fuel cells not fueled by Class I renewable fuel	\$4.00/Watt	60%	None
Level 2 •Microturbines •Internal Combustion Engines •Combustion Turbines	\$1.00/Watt	30% <sup>(3)</sup>	None
Level 3 •Heat Recovery or Other Mechanical Recovery from Existing Equipment Utilizing New Electric Generation Equipment	\$0.50/Watt	30%	None
<sup>(1)</sup> Insert New Jersey's code requirements or any other mandates if applicable to the appropriate technology. <sup>(2)</sup> No one particular level will receive more than 50% of the funding, subject to review after 6 months <sup>(3)</sup> The maximum % of project cost will go to 40% where a cooling application is used or included with the CHP system.			

Since 2004, CHP incentives have been administered through a dedicated CHP Program. Each year the Program has expanded in scope and budget. Historically, there have been a number of projects (approximately 25%) that, due to various market conditions, have not been implemented. Overall market awareness of the program has increased significantly and the quantity of applications has increased annually.

The Market Manager has developed the 2009 Pay for Performance budget to include funding for CHP projects. The current 2009 Pay for Performance budget allocates \$10 million toward CHP related projects. Pay for Performance projects that incorporate a CHP component will be eligible

for additional incentive up to \$1,000,000 per project. The CHP budget shown in Appendix B is to accrue funds for the previous year's CHP project incentives only.

### *CHP Warranty Requirements*

Systems installed must be covered by a warranty of 5 years or a 5-year service contract.

### *Eligible CHP Project Costs*

For the purpose of determining the maximum incentive payment, the following costs may be included in total eligible project cost:

- Combined Heat and Power equipment capital cost
- Engineering and design costs
- Construction and installation costs, including commissioning costs
- Engineering feasibility study costs
- Interconnection costs
- Permitting costs
- Up to 5 years warranty or service contract costs
- Fuel line installation costs, limited to the following:
  - Costs associated with installing or upgrading a fuel line.
  - Customer's cost for any evaluation, planning, design, and engineering costs related to enhancing/replacing the existing fuel service specifically required to serve the CHP equipment
- Air emission control equipment capital cost
- Primary heat recovery equipment, i.e. heat recovery equipment directly connected to the CHP system
- Heat recovery piping and controls necessary to interconnect primary heat recovery equipment to existing thermal load at the project Site

### *Not Eligible For CHP Incentives*

The following types of generating systems/equipment are not eligible for the program:

- Back-Up Generators - systems intended for emergency or back-up generation purposes.
- Any system/equipment that uses diesel fuel, other types of oil and coal for continuous operation.
- Renewable fueled projects, including biodiesel and landfill gas, must be submitted through the CORE Program or other relevant renewable energy program under the CEP.

### *Guidelines for Projects that include CHP Systems*

Prior to equipment installation:

- Participants must apply through the Pay for Performance program and submit the required Application Form and the appropriate Technical Worksheet to the Market Manager. In addition to complying with the guidelines established for Pay for Performance, Applications that also include CHP will be evaluated on the basis of the criteria listed below in Evaluation Guidelines. Upon review and approval of the Application, a commitment letter/letter of intent will be issued approving the eligibility of the system and reserving the incentive.

- The Pre-Installation Application Form must include information demonstrating that the proposed system will meet all applicable technical and certification requirements as specified in the Technical Worksheet.
- Applicants must allow inspection of eligible systems. The Market Manager will inspect 100% of the installations prior to issuing the incentive.
- A minimum of seventy-five percent (75%) of the incentive related to the CHP system will be paid upon project completion, review and acceptance of documentation and successful inspection. The remainder, up to 25% of the project incentive, will be paid one year after project inspection and acceptance and confirmation the project is achieving the proposed efficiency threshold. Applicant must provide twelve (12) months of operational data demonstrating the equipment achieves the efficiency levels that were originally proposed.
- Incentive dollars will be reserved based upon the date of the approved Pre-Installation Application Form;
- Funding will be reserved for 18 months from the date of the award letter; thereafter the Board, in conjunction with the Market Manager, may at its option cancel the funding. Any circumstances which will result in a delay past the 18-month timeframe must be reported to the Market Manager at least one month prior to the expiration of the funding award. Applicants must submit a request for extension in writing. The request must identify the reason for the request, and a schedule that identifies how much extra time is needed to complete the project. Requests for extensions may be granted for up to one year so long as applicant can demonstrate proof of significant project advancement. This could be in the form of copies of permits, equipment invoices, installation invoices indicating percentage complete, updated project schedules, etc. In addition, Market Manger reserves the right to conduct an inspection of the project to confirm project advancement. Approval of a request for extension will not change or modify any other program terms and conditions.
- Applicants **must** be contributors to the Societal Benefits Charge fund.

### *CHP Evaluation Guidelines*

Projects will be evaluated utilizing the criteria established for under the Pay for Performance program and will based on a comprehensive, whole building approach to energy efficiency. As part of the evaluation of the CHP component of the overall project, the following criteria will be reviewed:

- System efficiency
- Environmental performance,
- Projected system startup date,
- Annual system utilization.
- Islanding capability
- General Programmatic Goals will be considered
- Project clarity

Project evaluations will take into consideration awarding funds to projects which are diversified in size, type of system, and type of end user. The following factors may also be considered:

- The Locational Marginal Price as determined by the PJM Interchange for the electric service area in which the project is located

- Inclusion of a project in an Emergency Management Center with islanding capability
- Location within the State’s Smart Growth districts

Applicants will not be allowed to receive incentives for the installed generation equipment from other available NJ Board of Public Utilities, Office of Clean Energy funds.

Incentives will be awarded on a case-by-case basis. The Office of Clean Energy has the right to change/modify or discontinue the Advanced Incentive CHP component of the Pay for Performance Program without notice. The program will cease when commitments exhaust allocated funding.

Only CHP equipment installed on the customer side of the utility meter is eligible.

Equipment must be sized to serve all or a portion of the electrical load at the customer site.

### Program Goals

The Pay for Performance Program goals and measures of effectiveness will include the following:

- **Market Transformation:** Expand the number of energy efficiency firms that offer comprehensive services. Promote the financial and environmental benefits of reducing energy consumption with emphasis on a comprehensive, whole-building approach.  
*Goal:* Develop a list of at least 10-15 Program Partners that can offer the comprehensive energy services necessary for developing an Energy Reduction Plan.
- **Market Penetration/Cost Effectiveness:** Reach significant numbers of commercial and industrial customers with comprehensive, cost effective scopes of work.  
*Goal:* Approve at least 25 applications for the Program.
- **Energy Savings:** Maximize total energy (electric and gas) efficiency opportunities through the whole building approach.  
*Goal:* Approve at least 20 Energy Reduction Plans that meet the minimum threshold for energy savings. Approve at least 5 Energy Reduction Plans that include CHP systems.
- **Create Green Collar Jobs:** Expand the number of firms offering comprehensive energy services. Program orientation seminars and associated training opportunities will help to develop a network of Program Partners who can offer a full range of technical, financial, and construction-related services.

### Program Deliverables

The Pay for Performance Program will provide the following services:

1. Develop a list of approximately 10-15 Program Partners that can offer Program services and publicize this list to potential participants.
2. Provide up to three (3) half-day Program Orientation seminars for Program Partners to introduce the Program and the Energy Reduction Plan development. The first Orientation will be promoted as a Program Launch event and will be open to Program Partners, potential Partners, and potential participants. OCE staff will also be invited.

3. Conduct Monthly Partner Conference Calls to present Program updates and discuss any issues that Partners may be encountering.
4. 100% Quality Control review of all submitted Energy Reduction Plans.
5. On-site inspections.

### **Quality Control Provisions:**

Documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all Pay for Performance Program participants. All applications are reviewed upon receipt to verify adherence to eligibility requirements. Applicant eligibility information is verified, along with all technical information in support of energy efficient measure qualification and incentive calculation. Applicant supplied information and program administrator performed incentive calculations are entered into the database, and files are created for all documents and ongoing project correspondence. Pre and/or post inspections are conducted as required.

#### *Quality Control for Projects that include CHP Systems*

In addition to the Pay for Performance Quality Control provisions, projects that include CHP systems will be required to meet additional provisions. Each awarded project that includes CHP will be inspected by the Market Manager. A field inspection report will be prepared and kept in the project file for record purposes.

Upon completion of the project, the award recipient will submit documentation that the work is complete (i.e., As-Built Drawings, P and ID Drawings, if necessary) and certification that the project has been constructed in accordance with the accepted application. This may include, but not be limited to, the following:

- Review of documentation to support “Eligible Project costs” as defined above.
- Verification that the information stated in the application matches what was installed.
- Confirmation that the equipment is new and permanently installed and not used, refurbished, temporary, pilot or demonstration equipment.
- Confirmation that the installed system is covered by a warranty of 5 years or a 5 year service contract.
- Confirmation that the system does not use diesel fuel, other types of oil, or coal for continuous operation.

The Market Manager will review this documentation, and, in conjunction with the post installation inspection, will confirm the project has been installed per the specifications of the approved application as well as in line with all program requirements. A post inspection will be performed on 100% of projects which include CHP systems. The Market Manager may also request additional project information or documentation required to verify the project has met the program requirements based on the original application. If the program requirements have been met, the Market Manager will process a minimum of 75% of the incentive based on the approved project amount. The balance (up to 25%) of the incentive will be paid approximately one year after the initial project inspection, upon confirmation that the project is achieving the proposed efficiency threshold. Applicants must provide twelve (12) months of operational data

demonstrating the equipment achieves the efficiency levels that were originally proposed. If required, TRC will provide a second post inspection at this time.

If the project has not been installed in accordance with the approved application, the Market Manager will review the project and assess the variances between the project as installed and as submitted. The Market Manager will request additional support documentation from the Applicant which may be helpful in evaluating the discrepancy. The Market Manager will review the discrepancies, perform a technical evaluation, and make a recommendation to the Program Coordinator and the OCE. Upon receiving approval of the recommendation, the Market Manager will notify the applicant and process the appropriate incentive.

### **Implementation Phase**

- Program Administration —to include the following services:
  - Develop and conduct Program Orientations (up to 3)
  - Conduct monthly Partner conference calls
  - Provide technical assistance via email and telephone
  - Develop Frequently Asked Question (FAQ) posting on web site
  - Provide interim Program Memos, as necessary, to clarify requirements
  - 100% Quality Control review of all submitted Energy Reduction Plans
  - 100% Project Inspections on first two projects for each Partner, at a minimum. Random inspections thereafter
  - Program Management, including weekly, monthly, and annual reporting
  
- Program Incentives are \$22 million
  
- External Evaluation – To be provided by the OCE’s external evaluation vendor.

### **Schedule**

This Program is expected to be available to the marketplace January, 2009. Program delivery will then take place over the course of one year.

### **Budget**

A detailed budget for this program for 2009 is attached in Appendix C.

## **Teaching Energy Awareness with Children's Help (TEACH)**

### **Background**

In its September 14, 2006 Order, the New Jersey Board of Public Utilities (the Board) authorized the development and implementation of a pilot K-12 Schools Energy and Education Program formerly referred to as SEEP, and now referred to as Teaching Energy Awareness with Children's Help (TEACH).

### **Program Description**

The TEACH Program will provide a range of services described below to educate students, teachers, and staff, while simultaneously enhancing the ability of schools to manage operational energy use and to comprehensively access New Jersey Clean Energy Programs. Rather than directly delivering technologies, the program builds institutional and individual capacities to understand and implement energy efficiency and environmental concepts and measures in an ongoing fashion. The program aims to build a self-sustaining culture and to provide a set of tools that school districts can use on a continuing basis after formal program activities conclude. The program will be delivered at the school district level.

Under the TEACH Program, approximately 100 schools will be recruited within at least 6 school districts. Recruited schools will be benchmarked and to provided the Alliance to Save Energy's Green Schools Program. This is a national program presently being implemented in several states and it is the nationally recognized standard for energy and environmental education. This program will be implemented as part of the New Jersey Office of Clean Energy's suite of Commercial & Industrial Programs presently managed by its competitively selected Market Manager — TRC. The qualifications of TRC and its management, supervisory, and other key personnel were significant factors in TRC's selection as Market Manager. TRC's background and qualifications, including staff resumes, are described in Section 3 of its original proposal in response to Treasury's RFP 06-X-38052.

### **Target Market and Eligibility**

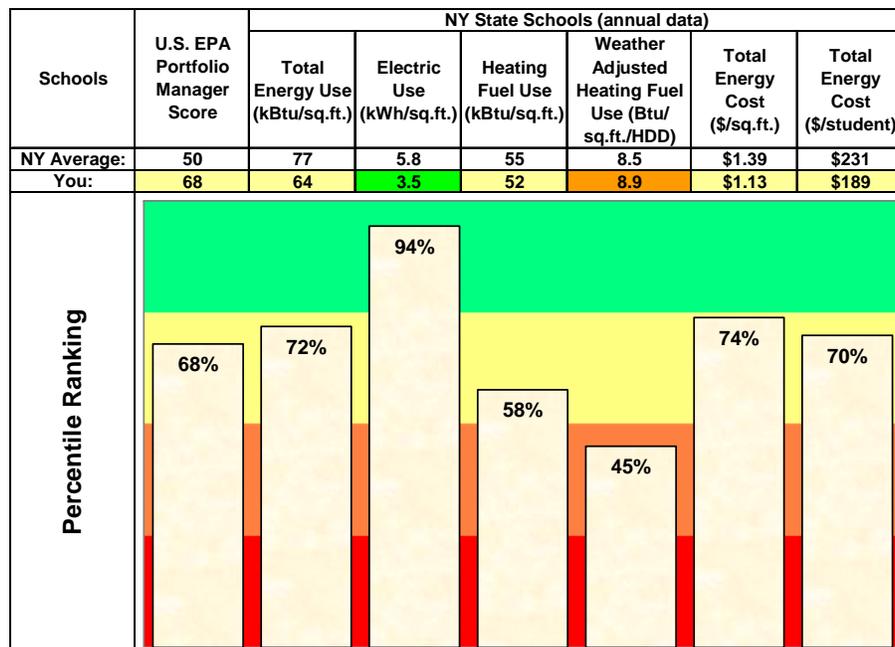
TEACH targets New Jersey public schools that serve kindergarten through twelfth grade (K-12) populations. New Jersey is home to more than 5,000 K-12 school buildings, which are major energy consumers. These schools educate not only their students, but also their staffs, students' parents, and community members on a wide range of subjects. The techniques and value of energy efficiency and renewable energy technologies merit focused attention by schools. TEACH will build on the lessons of the Alliance to Save Energy's Green Schools Program and TRC's delivery of the Energy Smart Schools Program, offered throughout New York State to pilot a second-generation school energy education/support program across the State of New Jersey.

## Program Offerings and Incentives

TRC will collect basic building characteristics for each school in a selected district. We will also collect at least 24 months worth of electric and heating fuel use and cost data, which will serve as each school's energy baseline. Building and utility data will be entered into and analyzed by TRC's proprietary *Building Energy Performance in Schools (BEPS)* system. Each school's benchmarking results will include its EPA Score, total energy use per square foot, electric use per square foot, heating fuel use per square foot, heating fuel use normalized for heating degree days, energy cost per square foot, and energy cost per student. The district and individual school will also be shown where they rank in each of these parameters relative to the other New Jersey schools in TEACH. Finally, the district will also receive a summary report showing where each of its schools rank relative to one another. These reports allow each school to develop priorities for improvement and also allow district officials to develop priorities among schools. TRC will then work with the district officials to determine which New Jersey Clean Energy Program offerings are most appropriate for their particular circumstances. In addition, TEACH will enlist districts to refund a percentage (25-50%) of their certified savings to their Green Schools Teams, who will decide how best to re-invest these savings in additional energy educational and efficiency activities.

The results from each school are presented both graphically (see Figure 1, below) and textually so as to provide excellent teaching aids for students and for teachers. Each report will also be delivered to the school along with a basic spreadsheet tool allowing student/teacher teams to determine the plug load and lighting components of their electric consumption. This provides teachers with real world, hands on examples from which students can learn the basic precepts of energy use.

**Figure 1: New York State Energy Benchmarking Sample Graphic**



The TEACH Program will also provide a range of educational services to the school districts selected to participate. The program will provide opportunities for introductory, intermediate, and advanced educational activities for students. The introductory and intermediate activities will be provided to the new participating districts through the regular operation of their Green Schools Programs. Staff will meet with the ongoing Green Schools Teams in these districts to facilitate the incorporation of service learning components that provide community outreach for advanced students in terms of energy efficiency services, such as energy audits of community or senior citizen centers.

When schools participate in other Clean Energy Program offerings, this program will assure that the site-specific impacts of implemented energy saving technologies are brought into the classroom. In addition to grade-appropriate teaching material, the program will provide extracurricular activities such as home or school energy audits. An essential aspect of this program is using the school facilities themselves as laboratories for learning about energy, while at the same time enhancing the schools' own ability to understand and manage energy efficiently. These aspects occur as students conduct original research on their building's energy usage utilizing the professional energy monitoring instruments provided in the Green Schools Tool Kit, as well as through such activities as energy patrols and regular meter reading.

The program will provide professional development relating to energy and the environment for school personnel. This focused training will explain to administrative, maintenance, and teaching staff exactly how their school uses energy, and the technical and operational ways to manage and change energy use patterns, including case study examples from other schools that have taken a lead. This professional development is important because most teachers may not feel comfortable teaching about energy and energy conservation because they have not been formally trained to do so. Professional development workshops, however, coupled with substantive yet inquiry-based lessons provided by TEACH can quickly overcome their initial feelings of inadequacy and will result in numerous enthusiastic, creative and confident energy educators and energy conservation advocates.

The program staff will respond to requests for classroom support and enrichment, such as demonstration lessons on energy issues, impacts, and technologies. The staff will provide ongoing support and networking for individual participants during the program, as well as links to continuing resources through the national and New Jersey Green Schools Programs. As the C&I Market Manager, TRC will continue to conduct active outreach in order to engage school districts in Clean Energy programming.

One type of incentive participating school districts will receive through this program is in the form of the professional help and resources that the program staff will provide during the operating period of the program. Another type of incentive involves financial savings from reduced energy usage as a result of school-based conservation activities.

Since an overarching goal is to deliver services as widely as possible, web-based information and accessibility will be established. This information will include basic program information as well as statewide schools benchmarking statistics and trends plus tools developed during the pilot. Additionally, participants will be surveyed regarding their ongoing needs for training, tools, and

information. They will be asked about already-identified potential services such as a summer training session for teachers and a speaker's bureau. Results of these efforts will be incorporated into the pilot evaluation and report, including recommendations for permanent implementation.

## **Program Goals**

TEACH pilot goals and measures of effectiveness will include the following:

- Market Penetration/Cost Effectiveness: Reach significant numbers of students, teachers, school operations personnel, and parents at reasonable costs. Goal: 100 schools from 6-9 school districts, involving 500 teachers, administrators, and custodians, who in turn involve approximately 9,000 students
- Reaching new constituencies: Recruit participants from beyond a single subject area or grade level. By focusing on the entire school community, TEACH involves teachers, not only from science and math, but also language arts, technology, social studies, performing arts, as well as extracurricular activities such as environmental clubs and energy patrols.
- Lasting impact: The program becomes institutionalized in schools in both the curriculum and the operation of their facilities. The energy awareness and efficiency content and activities become institutionalized as teachers incorporate lessons into their ongoing curricula and extracurricular activities, as well as through the upgrading of O&M practices at the district and school levels.
- Demonstrable results:
  - Schools' energy use decreases compared to established energy baselines, and/or the use of renewable energy increases. Energy Benchmarking will not only establish baseline use for each participating school, but also provide verifiable comparisons that show the results of TEACH Teams' efforts to save energy in their buildings.
  - Measurable impact on energy and environmental awareness of students. Student pre- and post-tests will be administered and tabulated to assess changes in student knowledge about energy and its environmental impacts as well as changes in student energy-saving behaviors.

## **Program Deliverables**

TEACH will provide the following services:

1. Recruit approximately 100 schools within 6-9 school districts to participate in TEACH, be benchmarked, and implement the Green Schools Program.
2. Establish energy baselines for each participating school utilizing its Energy Benchmarking program.
3. Provide quarterly energy reports to each Green School and to each district's central administration.
4. Provide a two-day Green Schools Team professional development workshop for each of the 6-9 districts for approximately 500 participants, who will consist of teachers, administrators, and school custodians.
5. Provide each participating teacher and administrator a set of Green Schools Learning Activities and each participating custodian a set of technical opportunities for improving energy efficiency in schools.

6. Provide 36 (an average of 4/district x 9 districts) *Green School Tool Kits* of professional energy instruments for use by students).
7. Provide each PreK-early elementary school (~20 of the 100) with a supplemental set of educational resources, including *Offalot Puppet Kit* and Project Learning Tree's *Energy and Society* )
8. Conduct a mid-year professional development workshop for each team that begins its work in the fall of 2007. Provide technical assistance during the initial professional development workshops on best practices for energy efficiency in schools.
9. Create and disseminate electronically at least 3 issues of the NJ Green Schools Newsletter featuring the activities and accomplishments of participating schools, as well as supplementary educational and energy saving resources.
10. Conduct, or assist Green Schools Teams as needed in conducting, end-of-the-year student celebrations in each participating district.
11. Calculate the financial savings for each Green School, including each school's earned refund.
12. Procure the services of an external evaluation consultant to assess the impacts of this program. As part of this assessment, this evaluator will revise, improve and administer the elementary and middle/secondary pre- and post-tests that were utilized in the first year of the pilot program.

### **Program Evaluation**

This program is intended to demonstrate best practices in schools' energy & education approaches that link to the school facilities' own energy use, so as to lay a foundation for a broader program in subsequent years. Therefore, evaluation of the program must be built in from the start. TRC will competitively select an additional subcontractor, an external, independent evaluator, subject to Board and Purchase Bureau staff review and approval.

This external, independent evaluator will be involved from the start, establishing evaluation criteria. The evaluator's periodic reports to the program staff will be available to Board staff, as well as the Clean Energy Council's Marketing & Communications committee. Based on energy program industry standards, five percent of the total program budget listed below has been allocated to the specific evaluation of this pilot program. Among other things, the evaluation must quantify achievements relative to the last two goals mentioned above.

### **Delivery Methods**

TEACH will be managed by TRC as the Commercial & Industrial Market Manager. The program will be offered on a consistent program design and implementation basis to ensure consistency across the state. TRC envisions selecting several firms, via a request for proposal (RFP) process to deliver the energy education portion of TEACH.

### **Budget:**

The statewide budget for this program for 2009 is attached in Appendix C.

## Goals and Energy Savings for the C&I Clean Energy Programs:

Goals:

The following are the goals for 2009:

- New Construction and Schools 275 approved applications
- Existing Construction 2,000 completed jobs
- Local Government Energy Audit 400 audits reviewed (audit = a building)
- Pay for Performance 20 approved plans
- Direct Install 1,000 completed installations

Energy Savings:

- Electric MWh avoided – lifetime saving 2,796,000
- Gas decatherms avoided – lifetime savings 1,420,000

## **New Program Components**

TRC is proposing two new enhancements to the 2009 Clean Energy C&I Program offerings:

- 1) New Construction - Pay for Performance
- 2) Sector Specific

The Pay for Performance New Construction Program will be an enhancement of the SmartStart New Construction Program. The sector specific program is an enhancement of the SmartStart and Pay for Performance Programs targeted to institutional, large industrial, higher education, multifamily and hospitality customers. Both program enhancements are described in more detail below.

### **1) New Construction – Pay for Performance Component:**

In order to address new buildings in the C&I market more comprehensively, TRC proposes to develop and implement an enhancement to the existing New Construction Program. This enhancement is referred to as the Pay for Performance New Construction Program and will be a subset of the existing SmartStart New Construction Program. The Pay for Performance New Construction Program will promote high performance buildings that achieve 20% or more energy savings than buildings built to the current energy code. By taking a performance-based approach, this Program component will allow architects, engineers, and energy professionals the flexibility to incorporate energy efficiency into the building design in a manner that best suits the project. While this Program will be implemented under the New Construction Program, much of the program design and incentive structure is similar to the C&I Pay for Performance Program that is designed for existing buildings.

This program will be implemented as part of the New Construction Program within the New Jersey Office of Clean Energy's suite of Commercial/Industrial (C&I) Programs.

### **Program Description**

The C&I Pay for Performance - New Construction Program will take a comprehensive, whole building approach to energy efficiency in new commercial and industrial buildings. Similar to performance contracting programs offered in other states, this Program will link incentives directly to energy savings and shall include a measurement and verification (M&V) component to ensure that the estimated savings levels are achieved. This market based- program will rely on a network of Program Partners, selected through a Request for Qualifications process. Once approved, Partners will provide technical services to program participants. Partners are required to strictly follow program policy but will work under contract to owners, acting as their "energy expert". Partners will be required to develop an Energy Reduction Plan for each project. The Energy Reduction Plan details a set of recommended measures that will achieve the performance target. A set minimum performance target will be required of all projects and will be established using a 20% reduction from a reference building based on ASHRAE Standard 90.1-2004 Appendix G. The achievement of this energy reduction goal will be verified using post-construction utility billing data.

## **Target Market and Eligibility**

Per the Energy Information Administration, commercial and industrial sector building energy use represents approximately 42% of the total energy consumption in New Jersey. C&I Pay for Performance - New Construction offers a targeted approach at addressing the large scale, newly constructed facilities within this sector.

The C&I Pay for Performance Program is open to new commercial and industrial construction projects with 50,000 sq ft or more of conditioned space. Participants will be required to work with an approved Pay for Performance Partner to develop the Energy Reduction Plan and facilitate the incorporation of the recommended energy efficient design features. In order to receive the full suite of incentives offered in the Pay for Performance Program, the submitted Energy Reduction Plan must include a package of energy efficiency measures that achieve the minimum performance threshold or Energy Target (i.e., 20% better than the ASHRAE-based reference building). In addition, the Energy Reduction Plan must include a comprehensive mix of measures; lighting cannot make up more than 50% of the total projected savings.

Energy cost will be used in the performance threshold calculation. Energy cost is also used by ASHRAE 90.1 Section 1 and Appendix G, EPA Act Federal Tax Deductions, and LEED NC. Pre-approval of the Energy Reduction Plan is required for all projects. Projects that cannot identify efficiency measures that meet the minimum performance level will be referred to the appropriate SmartStart Buildings Program(s). The Energy Reduction Plan will also include a measurement and verification (M&V) plan for all recommended measures.

## **Program Offerings and Incentives**

TRC currently provides administration and inspection services for the New York State Energy Research and Development Authority's (NYSERDA) Commercial and Industrial Performance Program (CIPP) and Multifamily Performance Program (MPP). CIPP offers commercial and industrial customers various levels of incentives based on the complexity and comprehensiveness of their proposed project. MPP provides an innovative whole-building approach to addressing energy efficiency measures in new and existing multifamily buildings. TRC has applied its experience from these award-winning programs to the development of a similar approach for commercial and industrial buildings in New Jersey through the Pay for Performance Program.

A key component of the Pay for Performance - New Construction Program is the development of a network of Program Partners who can provide the technical, financial, and construction-related services necessary for completing the Energy Reduction Plan. The Partner network developed by the Pay for Performance Program for existing buildings will likely include firms that are also qualified to serve new construction projects. One of the goals of this program will be to expand the network of energy efficiency firms that can provide these services in order to make this Program accessible for smaller commercial and industrial projects. This market-based approach is a key component of market transformation by creating "green collar" jobs and helping to develop the workforce necessary to achieve ambitious energy savings targets. Firms interested

in becoming Program Partners will be required to submit case studies and resumes showing experience and expertise in C&I energy efficiency projects for new buildings.

Program incentives will be performance-based and not specifically tied to the project cost or the recommended energy efficiency measures. Disassociating incentives from project cost is a key program design decision as it streamlines program administration by eliminating the collection of bid documents, construction contracts and change orders. This incentive structure also provides the benefit of allowing Partners to estimate and explain incentives to prospective participants as part of the program sales process. Program incentives will be capped not to exceed 50% of the total project incremental cost.

Incentives (to be finalized per approved Program design) will be released in phases upon satisfactory completion of each of four Program milestones, which are:

1. Submittal of a draft Energy Reduction Plan, Signed Developer/Partner Contract, 75% of design team's fees paid by developer
  - a. Incentive paid in the amount of \$25,000
  - b. Projects that cannot identify efficiency measures that meet the minimum performance level will be referred to the appropriate SmartStart Buildings Program.
  - c. Incentive is contingent on moving forward with construction.
2. Approval of the proposed Energy Reduction Plan that indicates achievement of a performance target of at least 20% by the proposed design
  - a. Incentive based on project square footage
  - b. Paid at \$1.25/ghsf
3. Approval of the final Energy Reduction Plan confirming a performance target of at least 20%
  - a. For a performance target 20%-22%, incentive paid at \$0.25/ghsf.
  - b. For a performance target 23%-25%, incentive paid at \$0.35/ghsf.
  - c. For a performance target 26% and up, incentive paid at \$0.50/ghsf.
  - d. A 10% retainage of the calculated incentive will be withheld for payment of the final incentive.
4. Completion of a Commissioning Report which reflects that the energy efficiency design features have been installed as specified. .
  - a. Incentive paid is 10% retainage from Incentive #3.

Incentive #1 – Energy Reduction Plan/Contract/Design Fees – This incentive will be developed to offset the cost of services associated with the development of the Energy Reduction Plan and design fees. This incentive will be a fixed amount of \$25,000.

Incentive #2 – ERP Approval – This incentive will be based on the designed project square footage. The rate will be \$1.25 per gross heated square foot to be paid upon approval of the proposed Energy Reduction Plan.

Incentive #3 – Final ERP Approval – This incentive will be based upon confirmation that the building achieved the performance target value indicated in the approval, final Energy Reduction Plan. The rates, as shown above, increase with performance target increase. 10% of this

incentive will be withheld until an M&V report has been completed verifying the project has met or exceeded its performance target.

Incentive #4 – Commissioning Report – Upon submittal of a Commissioning Report that verifies that the energy efficiency design features have been installed to specifications to meet or exceed the minimum performance threshold, the remaining amount of the performance-based incentive will be released.

Specifics of the Commissioning Report will be developed during final detailed program design and will draw from existing protocols developed by accredited organizations such as the US Green Buildings Council (USGBC) and the American Institute of Architects (AIA).

## **Program Goals**

The Pay for Performance New Construction Program goals and measures of effectiveness will include the following:

- Market Transformation: Expand the number of energy efficiency firms that offer comprehensive services. Promote the financial and environmental benefits of reducing energy consumption with emphasis on a comprehensive, whole-building approach.  
**Goal:** Develop a list of at least 15 Program Partners that can offer the comprehensive energy services for new construction projects necessary for developing an Energy Reduction Plan.
- Market Penetration/Cost Effectiveness: Reach significant numbers of commercial and industrial new construction projects with comprehensive, cost effective scopes of work.  
**Goal:** Approve at least 17 applications for the Program.
- Energy Savings: Maximize total energy (electric and gas) efficiency opportunities through the whole building approach.
  1. **Goal:** Approve at least 15 Energy Reduction Plans that meet the minimum threshold for energy savings..

## **Program Deliverables**

Pay for Performance – New Construction will provide the following services:

1. Develop a list of approximately 15 Program Partners that can offer Program services and publicize this list to potential participants.
2. Provide up to three (3) half-day Program Orientation seminars for Program Partners to introduce the Program and the Energy Reduction Plan development. The first Orientation will be promoted as a Program Launch event and will be open to Program Partners, potential Partners, and potential participants.
3. Provide two (2) Energy Modeling Training Sessions for Program Partners related to ASHRAE 90.1 Appendix G.
4. Conduct Monthly Partner Conference Calls to present Program updates and discuss any issues that Partners may be encountering.
5. 100% Quality Control review of all submitted Energy Reduction Plans.

## 6. Two On-site inspections per approved Energy Reduction Plan

Should additional key personnel be recruited to assist in the design/implementation of this Amendment, TRC will provide Board and Purchase Bureau staff with a copy of the individual's resume and hourly rate for approval and inclusion in the contract.

### **Quality Control Provisions**

Documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all Pay for Performance Program participants. All applications are reviewed upon receipt to verify adherence to eligibility requirements. Applicant eligibility information is verified, along with all technical information in support of energy efficient measure qualification and incentive calculation. Applicant supplied information and program administrator performed incentive calculations are entered into the database, and files are created for all documents and ongoing project correspondence. Pre and/or post inspections will be conducted as required.

### **Implementation Phase**

Program Administration Application Processing and Quality Assurance to include the following services:

- Develop and conduct Program Orientations (up to 3)
- Develop and conduct Energy Modeling Training (up to 2)
- Conduct monthly Partner conference calls
- Provide technical assistance via email and telephone
- Develop Frequently Asked Question (FAQ) posting on web site
- Provide interim Program Memos, as necessary, to clarify requirements
- 100% Quality Control review of all submitted Energy Reduction Plans
- 100% Project Inspections on first two projects for each Partner, at a minimum
- Program Management, including weekly, monthly, and annual reporting

### **Program Incentives**

Incentives available under this program are ~ \$4,000,000

### **Program Evaluation**

Ongoing evaluation services will be provided by the OCE through its evaluation vendor

### **Schedule**

TRC is prepared to begin the pilot Design Phase immediately upon receiving notice-to-proceed and anticipates development of marketing and program material necessary for recruiting Program Partners within 60-90 days. Program delivery will then take place over the course of

one year. Exact delivery dates for each deliverable listed above will be established and reviewed by Board staff.

## **Budget**

The statewide budget for this enhancement is incorporated in the 2009 budget in Appendix C.

## **2) Sector Specific Program Enhancement:**

### **Background**

The goal of the proposed sector-specific program enhancement is to assist NJ OCE in achieving greater energy efficiency awareness and energy efficiency penetration among its customers using a sector-based approach to program delivery. Sector-based program delivery is expected to make it easier for customers to access specific programs, services, products and technologies, training, and educational materials that are relevant to them; contractors and other allies to help them achieve their energy reduction goals, and trade organizations and other associations for further support. TRC, as OCE C&I Market Manager, will develop programmatic strategies that resonate for each of the sectors, resulting in actions that make their new or existing facilities more energy efficient. Strategies proposed include, but are not limited to: benchmarking, targeted marketing materials and messages, one-on-one interaction, training, development of informational resources and tools, leveraging partnerships with trade associations, integration with regional and national efforts, recognition of sector leaders, as well as guidance for customers in using the existing NJ Clean Energy programs and services. Sector-specific services will be provided under the existing SmartStart and Pay for Performance Programs.

In 2003, New York State's NYSERDA implemented its first-ever sector-specific program, *Energy Smart Schools*, focusing on the K-12 market sector. By 2007, the program had provided services to 25% of the eligible market, had resulted in a sector-wide reduction in average energy use of close to 20%, and had received the prestigious ACEEE Exemplary Program Award. Based on its successes, NYSERDA rolled out additional sector-based programs for the Industrial, Commercial Real Estate, Hospitality, Municipal Water/Wastewater, and State Agency market sectors. With the advent of the TEACH Program and the Local Government Energy Audit Program, NJ OCE is also beginning to implement sector-specific programs.

NJ OCE has spent many years developing a host of very successful programs for its customers. As we continue to expand program offerings and add new opportunities and incentives for customers, we must realize that customers are often confused about how to access programs and services, or more importantly, don't fully understand the menu of opportunities available to them.

Additionally, because of the impending new utility-based programs, incentive levels and offerings may be different from one utility service territory to another, and certain technologies are specific or more appropriate to that locale. For these reasons, it is imperative that NJ OCE move toward an internal program structure that supports customers that want assistance unique

to their business. Sectors have different technological needs, value propositions, and future prospects. Energy efficiency technologies and programs that are keyed to those needs, value propositions, and prospects are likely to be more successful than broad scale efforts with no specific target in mind. By providing services specifically designed and packaged to complement a sector's core mission and unique operating characteristics, additional understanding and implementation of energy efficiency can be achieved.

Sectors such as Institutional, Industrial, Higher Education, Multifamily and Hospitality have substantial energy efficiency and energy cost savings potential, but each has unique barriers to acceptance of new technologies and concepts. For example, many industrial facilities are conservative with regard to changes in manufacturing processes and often base their decisions on improved production capability. The Institutional sector faces issues around public ownership and public budgeting/procurement cycles.

As developed, each sector approach will use the existing portfolio of NJ OCE programs in conjunction with other strategies and services appropriately customized for each sector. Strategies and services to be considered may include, but are not limited to: benchmarking, targeted marketing materials and messages, one-on-one interaction, training, development of informational resources and tools, leveraging partnerships with trade associations, integration with regional and national efforts, recognition of sector leaders, help with accessing NJ OCE incentives and other opportunities.

### **Program Description**

The objective of the proposed sector-specific program enhancement is to provide targeted sectors with customized services so that customers may better understand and implement: energy efficiency, sustainable design and operation, and renewable energy as appropriate to their sector. In addition to energy-related benefits, strategies will vary by sector and be developed to leverage non-energy benefits, such as: satisfying environmental regulations; improving productivity, promoting economic development, improving indoor environmental quality, and implementing maintenance savings; which often influence energy efficiency decisions.

Each sector will be assigned a TRC project manager, who will be responsible for overseeing the selected efforts and coordinating internally to ensure that there is consistency in the information provided to customers, and that it reflects the goals and objectives of the New Jersey Clean Energy Program. All sectors will continue to be supported by the NJ Clean Energy website and TRC will develop the format and basic content for sector specific web pages.

The Sector-Specific Program enhancement will be an information transfer and marketing effort that will use existing core New Jersey Clean Energy Programs along with the services and strategies developed for each sector.

Services and strategies which are specific to individual sectors will be provided as part of the detailed program design. During this detailed design phase, TRC will choose services and strategies appropriate for the sector, modify and prioritize them, and/or provide additional

services and strategies not included, in an effort to better achieve the goals of this program. Potential services provided include:

- **Benchmarking** — A rating system that scores and tracks a facility’s energy efficiency and other factors over time to help establish relative efficiency and improvement goals. Benchmarking may also compare a facility’s energy use to its peers, identifying facilities with higher potential for energy savings.
- **Targeted marketing materials and messages** — materials designed to motivate key market stakeholders to take action. These materials may offer technical or historical sector information and strategies. Examples include: sector case studies, white papers, technical information, customization and repackaging of program information, etc.
- **One-on-one interactions and outreach** — direct customer assistance will help facility managers and decision-makers develop action plans and take advantage of energy efficiency and demand management. The focus will be on recruitment of new participants to NJ OCE programs and developing and maintaining ongoing customer relationships.
- **Training** — including educating customers on energy efficiency, demand reduction strategies, program opportunities, efficient operation of equipment and processes, procurement of energy efficient products, etc. Training should encourage a long-term commitment to superior performance and be strategically tied to program resources and services.
- **Partnerships with trade associations** — establish partnerships with organizations and associations that result in ongoing education specific to the sector, reduce duplication of efforts, and facilitate the ability to reach the associations’ constituents through established resources like newsletters, conferences, websites and training. These partnerships can increase the effectiveness of other strategies by leveraging additional resources.
- **Materials and Tools** — including the development of guidelines, technical resources, simple estimator tools and other technical resources designed to assist customers achieve program goals.
- **Integration with regional and national efforts** — collaboration with national and regional efforts and organizations such as the: the U.S. Environmental Protection Agency (EPA), the U.S. Department of Energy (DOE), Northeast Energy Efficiency Partnership, the Consortium for Energy Efficiency, the American Council for an Energy Efficient Economy, Motor Decisions Matter, ENERGY STAR®, Pump Systems Matter, and the Compressed Air Challenge. Understanding and prioritizing these efforts and partnering with these organizations will help keep New Jersey’s Clean Energy Programs on the leading edge of process and technology innovation and provide opportunities to leverage these resources to better serve New Jersey sectors.
- **Recognition** — including awards, promotions, and other forms of customer recognition demonstrating customer efforts to reduce consumption or improve their energy efficiency that can lead to recruitment of other facilities and additional interest in maintaining efficiency in the sector. Both organizations and/or individuals may be recognized.

## **Target Market and Eligibility**

**Industrial** — This sector includes facilities used to manufacture products or store goods and other merchandise. Subcategories include manufacturing facilities and other industrial facilities.

The industrial sector in New Jersey varies widely in size and type of manufacturing facilities. The detailed program design will identify what portion of the industrial sector will be targeted; keeping in mind the goal of cost-effectively providing the greatest impact on energy awareness, and energy efficiency penetration into the sector. General outreach must be available to all types of industrial manufacturing facilities. Site-specific services may be targeted to some type of industry, facility size, or geographic location.

**Higher Education** — This sector includes public or private post-secondary educational facilities including, but not limited to, colleges and universities and community colleges.

**Institutional** — The institutional sector can generally be described as facilities owned or operated by local governments including libraries, preschools, day care and senior living/senior care. During the detailed design phase, an analysis will be done and recommendations made whether or not to roll the pending Local Government Energy Audit Program into this overall programmatic approach.

The sector specific program enhancement will also focus on the **Multifamily** and **Hospitality** sectors.

### **Program Offerings and Incentives**

The following are brief descriptions of potential sector specific information and services. It is important to remember the overall goal is to offer a portfolio of services and strategies which cost-effectively provide the greatest impact on energy awareness, and energy efficiency penetration into the sector.

NJ OCE's overarching goal with the Sector-specific Program is to empower facility managers to make energy efficiency decisions. To reach this goal, TRC proposes a twofold strategy which it will apply across all subsectors. TRC will aggressively pursue an educational campaign to transform facility managers into knowledgeable energy customers and supply them with the data they need to make decisions about their own facilities. This is vital to NJ OCE's effort because they are then able to take the initiative to become agents of change within their organizations. This outreach will include benchmarking, direct training, development and dissemination of needed tools, and one-on-one technical assistance. It will take full advantage of collaborative relationships with a range of market participants detailed below. Concurrently, TRC will continue to diligently market NJ OCE's program offerings so that facility managers understand how NJ OCE can help them translate their initiative into action.

Integrating with regional and national efforts and leveraging partnerships with trade associations are guiding principles of TRC's approach to serving the specific sectors. Integrating with regional and national efforts allows NJ OCE to benefit from the capabilities of specialized organizations to compliment TRC's in-house expertise. These organizations include the U.S. Environmental Protection Agency (EPA), the Northeast Energy Efficiency Partnership (NEEP), and the U.S. Green Building Council (USGBC). TRC's strategy for bringing these technical skills to the individuals on the front line of energy efficiency such as facilities' directors,

business officials, agency heads, and university boards is to take advantage of the relationships they have with specific organizations.

**Energy Benchmarking of Electricity and Heating Fuel Use** is a cornerstone of TRC's education strategy. TRC has found that benchmarking reports are very successful in providing facility managers a complete picture of energy use and cost among their various buildings. By giving them information on how well or poorly their buildings are performing relative to their peers, benchmarking helps facility managers see where their needs are and provides impetus for prioritizing and addressing those needs. The benchmarking report also provides an excellent medium for presenting information on NJ OCE programs. TRC will build upon our current success in benchmarking close to 3,000 facilities around the country by making a concerted effort to reach out to individual sector components, as well as modifying our benchmarking system to accommodate the range of building types.

**Recognizing Sector Leaders** works hand-in-hand with benchmarking to galvanize support within a facility manager's organization. By facilitating receipt of nationally recognized awards such as U.S. EPA's ENERGY STAR Building Label and the ENERGY STAR Leader Award, the Program gives facility managers the leverage to champion energy efficiency within their organizations. The recognition of sector leaders also has the ancillary benefit of providing case studies and marketing focal points.

**Training** in Energy Efficient Building Management is a key part of TRC's strategy. Based on surveying the sector-specific customer needs, this training may include Building Operator Certification (BOC) and sector-specific seminars offered through the relevant sector-specific trade and professional associations. Meeting their expressed needs in a formal educational environment ensures that facility managers have a solid foundation in efficient building operation as well as in-depth knowledge of energy efficiency topics relevant to their buildings. These training opportunities also provide an excellent forum to introduce facility managers to NJ OCE program offerings that will assist them in transforming classroom concepts into actual energy savings at their buildings.

**Conferences** are another excellent means of raising awareness of energy issues and introducing market participants to NJ OCE programs. Furthermore, conferences allow for private sector product and service providers to network with facility managers. This allows facility managers to find opportunities that complement NJ OCE's program offerings and encourages the growth of private sector energy efficiency initiatives. TRC plans to work with these partner organizations to support at least three conferences with those organizations during the first year of the contract.

**Technical Assistance** has been extremely well-received under NYSERDA's Energy Smart Schools Program and has lead directly to the development and wide dissemination of many hands on, software tools. As TRC is not affiliated with any equipment manufacturer or supplier, TRC's impartiality ensures that we provide assistance that is truly geared toward meeting the needs of NJ OCE's customers.

## **Program Goals**

The Sector-specific Program goals and measures of effectiveness will include the following:

- Market Transformation & Penetration: Expand the number of Clean Energy Program applicants from each sector.

**Goal:** Demonstrate a market penetration based on specific services provided and new applications received.

**Goal:** Benchmark 75 buildings per sector

**Goal:** Facilitate 5 Building Operator Certification Courses

**Goal:** Facilitate 35 Energy Star Labels

## **Program Deliverables**

The Sector-specific Program will provide the following services:

1. Develop a list of sector-specific Program services and publicize this list to potential participants through their respective trade associations.
2. Customize TRC's existing proprietary energy benchmarking system, *Building Energy Performance System™ (BEPS)*, for use in each sector.
3. Provide a series of Program Orientation seminars for Trade Association Program Partners to introduce the Program. The first Orientation will be promoted as a Program Launch event and will be open to Program Partners, potential Partners, and potential participants.
4. Conduct Monthly Partner Conference Calls to present Program updates and discuss any issues that Partners may be encountering.

## **Program Evaluation**

Ongoing evaluation services will be provided by the OCE's evaluation vendor as part of overall Program evaluation.

## **Schedule**

TRC is prepared to begin the Design Phase immediately upon receiving notice-to-proceed and anticipates development of marketing and program material necessary for recruiting Program Trade Association Partners and Participants within 60-90 days. Program delivery will then take place over the course of one year. Exact delivery dates for each deliverable listed above will be established and reviewed by Board staff.

## **Potential Market Barriers to Participation**

The proposed program's goal is to reduce already-existing market barriers to participation.

## **Budget**

The statewide budget for this enhancement is incorporated in the 2009 budget in Appendix C.

**Appendix A: 12-Month Marketing Activity Plan**

**Appendix A**

**2009 12- Month Marketing Activity Plan**

### C/I Market Manager Marketing Plan Summary - 2009

#### Background

The centerpiece of the commercial/industrial portfolio, the NJ SmartStart Buildings Program, begins its seventh year of operation in 2009. The program provides significant financial incentives for high efficiency measures incorporated in new construction and retrofit projects as well as design support and technical assistance. In addition, near the end of the third quarter of 2008, four new programs are expected to be launched including the Local Government Energy Audit, Pay-for-Performance, Direct Install, and TEACH, a demonstration program directed at New Jersey's K-12 Schools Market Sector. Finally, several additional new programs are anticipated to be approved and rolled out to the market in January 2009.

#### Key factors driving TRC's 2009 Marketing Plan include:

1. Program enrollment is below anticipated levels indicating a general lack of awareness among the business owner and trade ally communities. We are confident that incentive levels are sufficient to drive energy efficiency choices, leading us to conclude that increased awareness levels will dramatically increase program participation.
2. Additional marketing dollars associated with the new programs identified above were officially approved in August 2008. A portion of the 2009 plan provides the funding necessary to develop/accelerate promotion of these new programs so that key target markets reach top-of-mind awareness levels.
3. The new initiatives planned for 2009 will also require marketing communications funding as they are launched throughout the year with a comprehensive and integrated set of strategies and tactics. These new initiatives include:
  - New Construction Pay-for-Performance
  - Institutional Sector Focus
  - Large Industrial Sector Focus
  - Higher Education Sector Focus
  - Training for Building/Facility Operators
  - Energy Benchmarking, EPA Award Recognition, Energy Audits, and other tools
4. Through 2008, the Office of Clean Energy provided direct funding for an umbrella marketing campaign to build/maintain general NJ Clean Energy awareness levels. In 2009, Market Managers will be required to fill much of the gap left by the elimination of those campaigns.

This plan summarizes recommended marketing communications, advertising, and promotional tactics along with budget levels to act on the above-named drivers and to achieve program participation goals.

## Appendix A: 12-Month Marketing Activity Plan

### Strategic Approach

The mission of the New Jersey SmartStart Buildings Program is to transform the commercial and industrial buildings market to incorporate energy efficient technologies throughout the state. Status quo decisions regarding new construction, major renovation, and equipment upgrade/replacement continually result in lost opportunities for reducing energy use and lowering demand for both natural gas and electricity.

Recognizing that the trade ally community (architects and engineers, energy service companies, contractors, product manufacturers/vendors) to a large extent drives this market, the program places major emphasis on building relationships with those influencers — creating the need for a “market push” strategic component. Focusing on these trade allies, rather than just reacting to construction projects, allows energy-saving options to be considered early in the decision-making process and increases the likelihood that future projects do not slip through the cracks.

In addition to the Trade Ally focus, our approach also recognizes the need for a “market pull” component directed at business owners and facility managers across a wide selection of commercial and industrial building types. Marketing communications activities are designed to create a buzz of interest around energy efficiency opportunities and drive changes in behavior by new construction and retrofit decision-makers.

Developing overall strategies and tactics, plus an appropriate budget to support them, cannot rely on a business-as-usual, “do what we did last year and add for inflation” management approach. One of the industry standard methods for determining an appropriate budget level for marketing communications is to consider an advertising-to-sales ratio compared to other benchmarks. Industry type and product lifecycle stage are factors that most heavily impact the variance in those ratios. New business launches in competitive industries typically have ratios as high as 15-17% of revenue. The computer and software industry spends an average of 19% of their sales on advertising; Jewelry stores spend about 8%; Full service restaurants spend around 2%; the average of all sectors combined is 2.2%. For our purposes, a comparison to the Services sector is likely our closest benchmark. That industry sector averages 3.4% of sales just for its advertising budget.

Advertising is just one part of our recommended marketing budget, which also includes public relations, trade show appearances and other forms of sponsorship, collateral materials, and special events. If we consider our "sales" to be equal to the program incentives paid, the 2009 commercial/industrial programs will provide an estimated total of \$82 million through existing initiatives plus “new launches.” The proposed budget of \$1.55 million for 2009 amounts to 1.9% of “sales.” Given the drivers noted above and appropriate benchmarks to other sectors, we recommend that funding level for the strategies and tactics identified in this plan to reach the Office of Clean Energy’s program participation and energy savings goals.

## Appendix A: 12-Month Marketing Activity Plan

### Tactical Components

#### *Trade Publication Advertising*

The 2008 media schedule included publications such as:

- Architectural Record (print and online), GreenSource Magazine, and Consulting Specifying Engineer targeting the design community
- NJ Biz, Business News NJ, and Distributed Energy typically read by business owners and energy managers
- School Leader, School Planning & Management, and School Construction News reaching decision-makers and influencers in the education community
- Real Estate New Jersey and Globe Street (online) were added to the schedule in the later part of the year after approval of the marketing budget providing for an expanded message to the commercial real estate developers target

Our proposed level of funding for 2009 print advertising will increase our rate of frequency in the above publications as well as provide for much broader reach as we identify new trade publications allowing us to reach our key target segments. The most recently added commercial real estate developers sector is one in which we look forward to further exploiting in 2009. Key market players in this segment are known to be very active in their search for available properties and we feel strongly that we will be able to identify valuable avenues for delivering high impact messages that will drive program participation.

Prices for these publications are expected to increase above 2008 levels, however, we will continue to negotiate the best possible rates given our ongoing commitment. Going forward, our ability to negotiate those favorable rates is, in part, dependent on remitting payment by the publisher's due date. With new processes now in place to speed the approval of Market Manager invoices, we expect an improvement in our relationships with these publications and an opportunity to receive discounts from their standard rate cards.

Beyond our 2008 media schedule, the 2009 budget includes funds for additional publications most likely to reach the specific target segments for our programs. In addition, we intend to expand our coverage to include a number of printed and online newsletters offered to members of particular associations, especially in the education, healthcare, restaurant, and supermarket sectors. Regional and state chapters of national organizations whose members we will want to reach through their newsletters, websites, and paid sponsorships include:

- NJ AIA
- NJ Society of Professional Engineers
- Association of Energy Engineers
- NJ League of Municipalities
- School Boards Association
- Building Owners and Managers Association of NJ

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- American Council of Engineering Companies of NJ
- American Society of Certified Engineering Technicians
- American Society of Heating, Refrigerating and Air-Conditioning Engineers
- Association for Facilities Engineering
- Illuminating Engineering Society
- Institute of Electrical and Electronics Engineers
- American Society of Plumbing Engineers
- Equipment Managers Council of America
- Executives Association of NJ
- International Facility Management Association
- Mechanical Contractors Association of NJ
- National Association of Industrial and Office Properties
- National Association of Women Business Owners
- NJ Business and Industry Association
- NJ Hotel Motel Association
- NJ Restaurant Association
- NJ Retail Merchants Association
- Refrigeration Service Engineers Society
- Association of Independent Colleges and Universities in NJ
- Community College Business Officers
- Council of Chief State School Officers
- Eastern Heating and Cooling Council
- NJ Association of School Administrators
- NJ Association of School Business Officials
- NJ Council of County Colleges
- NJ Chapter Eastern Region Association of Higher Education Facilities Officer
- American Association of Healthcare Administrative Management
- Healthcare Engineers of Southern NJ
- Healthcare Facilities Management Society of NJ
- Healthcare Financial Management Association
- Hospital Engineering Society of Greater NY
- NJ Hospital Association
- National Supermarkets Association
- Southern New Jersey Development Council.

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### *Trade Shows*

In 2008, NJ SmartStart Buildings exhibited at the EEI National Accounts Workshop, the NJ School Boards Association, the NJ League of Municipalities, the NJ Clean Energy Conference, the NJ BIA, NJ AIA, NJ Biz Expo, Northern NJ Facilities Expo, and the World Energy Engineering Congress; as well as a number of smaller events.

Our 2009 budget allocates funds for these shows as well as sponsorships allowing program representatives to speak/present. This incremental cost dramatically increases the program's visibility and the direct knowledge of participants at these shows.

Another method for increasing visibility involves the use of pre-show mailings. Funds are included for sending mailers and/or e-mail blasts to targeted attendees for those shows where lists are made available to exhibitors. This tactic is important in establishing brand recognition and name awareness to further increase the likelihood that attendees will visit our booth and engage our program representatives. It can also serve as a key tactic in delivering our message to members of an organization who are not in attendance.

New funding is also included for additional state, regional, and local opportunities such as the NJ Restaurant Association, NJ Hospital Administrators, NJ ASHRAE, NJ AIA (state and local chapters), NJBIA, and the Southern NJ Development Council. We have also reserved a smaller pool of funds to allow for outreach efforts with many of the organizations listed above for events allowing us to bring tabletop displays, distribute collateral materials, and network with decision makers and trade allies involved in commercial and industrial building construction activities throughout the state.

### *Direct Marketing*

New activities using direct mail and e-mail blasting are planned for 2009 as a primary strategy for raising awareness of the new initiatives as well as to complete our ramp up of the new programs added in the later part of 2008. Six specific sectors will be targeted with direct marketing campaigns in 2009 including municipalities, small, medium and large businesses, schools, and higher education. In addition to print and electronic ads in publications and trade show opportunities, the associations and organizations identified above will be an important source in acquiring direct marketing lists for each of these sector-specific campaigns.

We also plan a seventh direct marketing campaign as a tactic for reaching the trade ally community. We have found architects and design engineers to be critical influencers, and even the actual decision-makers in many cases with regard to equipment selection and new construction specifications.

### *Collateral Materials*

The 2009 budget provides for focused collateral materials that will describe the new programs in considerable detail for our target markets. Funds are also provided for revising our existing program materials as new features and procedures are approved. In addition, case studies continue to play a vital role in demonstrating successful

## Appendix A: 12-Month Marketing Activity Plan

projects to key targets, but have had limited development and distribution resources to date. These materials are produced for uploading to the Web site as well as printed for distribution as part of a folder kit used at trade shows, special events and individual sales calls by the Outreach Team. The 2009 budget for collateral materials also includes funds for photography to be used in those brochures and case studies.

### *Public Relations*

Ongoing public relations efforts include activities designed to generate editorial copy in appropriate publications throughout the state (especially for the new initiatives and those introduced in the later half of 2008). We also plan a quarterly series of events utilizing BPU Commissioners to distribute incentive checks to high-profile projects. These events will include notifying media to encourage coverage, photography to create photo releases for distribution to the appropriate networks and follow-up contacts to promote placement.

As in years past, press releases, press kits, and talking point documents will also be created and distributed to media outlets in association with newsworthy events or activities. This includes the launch of new programs, high profile incentive payments, innovative designs and other stories of interest to the business and design communities.

### *Broadcast Tactics*

Primarily as a consequence of the gap left by ending the umbrella advertising campaigns, traditional broadcast tactics will be added to the commercial/industrial marketing plan for 2009 at funding levels that will allow a meaningful test of our ability to drive response in a cost-effective manner. To date, our plans have been limited to narrowcast tactics given our well-defined target market. The 2009 plan will feature a television spot/video PSA, two versions of a radio spot, and creation of signage for outdoor tactics. Our intent is to use broadcast tactics in a narrowcast manner. A radio spot, for example, that is carefully placed on a news talk show station during work drive times can be an effective method for reaching our specific audience of owners, facility managers, trade allies or even employees who are in a position to influence the decision-makers at their business locations.

### *Program Management*

The 2009 budget also includes continued funding for planning and implementation of the marketing communication campaigns and ongoing coordination with the activities of the NJ Clean Energy Marketing and Communications Committee, the Annual Awards Conference Committee, Community Partners Initiatives, and other NJ Clean Energy Programs. Specific labor categories include:

- Creative Design and Production
- Account Coordination and Media Management
- Strategy, Planning, and Reporting
- Web site Support and Content Management
- Development of Story Items for the Quarterly Newsletter
- Outreach Coordination and Support
- Call Center Training and Support

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- Responses to E-mails Submitted to the Web site
- Market Research Support

### *Summary*

The NJCEP commercial and industrial portfolio includes a number of programs with appeal to a number of specific target segments. Strategies and tactics described in this plan are part of a comprehensive and integrated collection of activities designed around the needs of those targets. In some cases, individual tactics and their associated funds can be attributed to a tight campaign around a specific program, such as with a program brochure or website page. In most cases, however, our vehicles for delivering marketing communications are tight to the segment, but wide enough in the message to introduce all of the portions of the portfolio that might appeal to that segment. The following table summarizes how those tactics are designed to promote the existing programs and planned initiatives for 2009.

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	C&I New Construction	C&I Retrofit	School New Construction & Retrofit	Pay for Performance & Combined Heat & Power	Local Government Energy Audit	Direct Install	TEACH	Pay for Performance – New Construction	Institutional Sector	Higher Education Sector	Large Industrial Sector
A&E Trade Publications; Websites; AIA Trade Show; Newsletters; Trade Allies Direct Mail and E-mail	X	X	X	X	X			X	X	X	X
Large Business Owner Publications; Websites; Direct Mail and E-mail	X	X		X				X			X
Schools Publications; Websites; Direct Mail and E-mail; School Boards Trade Show and Pre-show Marketing			X		X		X				
Developer Publications; Websites	X	X		X		X		X	X		X
Demonstration Site Sponsorships	X	X	X			X	X		X	X	
Media Story Pitching; Press Releases	X	X	X	X	X	X	X	X	X	X	X
Check Presentation Events	X	X	X	X	X			X	X	X	X
Municipalities Trade Show; Newsletter; Direct Mail and E-mail			X		X	X	X				
Small Business Direct Marketing	X	X				X					
Medium Business Direct Marketing; Owner Publications; Websites	X	X				X					
College/University Direct Marketing	X	X		X				X		X	
Globalcon Trade Show	X	X	X	X	X			X	X	X	X
EEl National Accounts Trade Show and Pre-show Marketing	X	X		X				X	X		X
NJ BIA Trade Show/Newsletters	X	X		X		X		X			X
NJ Clean Energy Conference; Newsletter	X	X	X	X	X	X	X	X	X	X	X
Television/Video PSA	X	X	X	X	X	X	X	X	X	X	X
Radio	X	X	X	X	X	X	X	X	X	X	X
Outdoor	X	X	X	X	X	X	X	X	X	X	X

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### Summary of Marketing and Public Relations Services Provided

The following list of services is a summary of the marketing activities included in this plan. This list is not meant to be all inclusive (our continued management of the content contained in the C&I section of the Web site is an example of additional tasks in our scope) nor is it intended to limit our ability to be flexible in responding to changing needs within the NJ BPU or in the market.

#### *Marketing/Advertising Campaigns*

- Developed to promote programs
- Creative concepts created and pitched to client
- Include media buy recommendation, script/ad developments
- Technical review before reaches client for final sign off
- NJCEP and BPU brand included as part of advertising

#### *Event Selection and Implementation*

- Select opportunities to plan events in conjunction with Program Managers to highlight program activities.
- Once opportunities are selected and approved by BPU, contact organization to initiate planning of events.
- Coordinate with BPU to select appropriate Commissioner or BPU surrogate
- Provide BPU with relevant project and program fact sheets to assist in talking point development (*BPU staff will develop talking points, utilizing fact sheets on programs and project details provided by market managers*)
- Conduct media outreach to ensure press coverage of Program, utilizing the Commissioners as an additional hook
- Attend press events with Commissioner to ensure coverage of Program and Commissioner.

#### *Event Reviews (process for when events are proposed to market managers/BPU)*

- Conduct review of whether the proposed event is within the scope of market manager work
- If not within scope of market manager work, pass to BPU for speaker's bureau or other opportunity.
- If within scope of recommended events, follow above process.

#### *Media Relations*

- Identify opportunities to promote programs through free media opportunities.
- Write press releases or media pitches, and conduct technical review before client receives copy.
- Identify press outreach lists.
- Conduct thorough outreach to secure placement.

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### *Written Materials*

- Create fact sheets on all program areas, updated on a monthly basis to ensure accuracy
- Conduct all technical review before providing to client on a monthly basis
- Conduct technical review of articles provided by client

### *Educational and Promotional Materials*

- Create brochures, public service announcements, pamphlets that contain a larger message of how businesses and local government can take small steps to be more energy efficient and/or invest in renewable energy
- Conduct all technical review before providing to client

### *Quality Assurance and Technical Review*

- High level, qualified staff with an expertise in writing should be developing written materials.
- Technical review by program staff needs to occur before materials are provided to client.

## **Contract Management**

TRC will manage the proposed 2009 Marketing Plan in accordance with those precepts set forth in its response to RFP 06-X-38052, its already-accepted *Operational Procedure Manual*, as well as Treasury's specific accounting and invoicing requirements. These documents include procedures for communicating with the State Contract Manager, including but not limited to status meetings and monthly, quarterly, and annual reports.

## **Contract Schedule**

TRC's 2009 Marketing Plan will be implemented over the course of one program year.

## **Mobilization and Implementation Plan**

The TRC and subcontractor staff to be assigned to Marketing are not presently working full time on other programs. They are available upon notice-to-proceed and mobilization will not be required.

## **Changes from Current Programs**

As noted in the *Management Overview* section above, the 2009 Marketing Plan is a change from the current program in that it is an increase in budget from its 2008 Plan.

### **Potential Problems**

Based on its 2008 experience, TRC does not see any potential problems implementing this expanded Marketing Plan.

### **Resumes**

TRC's background and qualifications, including staff resumes of the personnel named for this program, are described in *Section 3, Organizational Support & Experience*, of its original proposal in response to Treasury's RFP 06-X-38052.

### **Backup Staff**

The TRC and Parker and Partners staff time of those who will implement this marketing plan over its one year duration add up to significantly less than their combined full time over that period. It is therefore unlikely that backup staff will be required for this pilot. If necessary, TRC maintains a pool of professionals from which we will send a replacement if presently-assigned staff are unable to complete the program. Should additional key personnel be recruited to assist in the design of this Amendment, TRC will provide Board and Purchase Bureau staff with a copy of the individual's resume and hourly rate for approval and inclusion in the contract.

### **Subcontractors**

Parker and Partners was TRC's originally-proposed marketing subcontractor. No additional subcontractors not named in TRC's original proposal will be required.

### **Pricing Schedule**

The budget table below shows the proposed 2009 budget by cost category. As shown, the top half of the table represents the fixed cost categories, and the bottom half represents the variable cost categories.

Note that this table is designed to demonstrate how the total annual budget was developed task by task from the bottom up. Since the majority of the cost categories below will support multiple individual program areas (new construction, retrofit, schools, CHP, etc.), this table is not broken down by program. That breakdown is shown by contract line item in the actual proposed amendment above. The fixed and variable totals on this table match those in the proposed amendment.

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Category/Task	Labor	Outside Costs	Total
<b>Account Management</b>			
Management and Oversight	\$60,750		\$60,750
Conference Calls/Meetings (OCE/BPU/PC, etc)	\$43,750		\$43,750
Co-op Program Facilitation and Management			\$0
Financial Administration	\$28,550		\$28,550
Reporting	\$7,875		\$7,875
General Office Administration			\$0
General Office Expenses and Supplies		\$775	\$775
Program Apparel	\$300	\$1,000	\$1,300
Corporate Overhead			\$0
Postage for Regular Operations		\$250	\$250
Travel		\$1,500	\$1,500
Membership Dues, Newsletter Fees, etc			\$0
<b>Strategic Direction</b>			
Strategic Planning	\$18,450		\$18,450
Marketing Plan Development and Execution	\$76,100		\$76,100
<b>Call Center</b>			
Call Center Briefings and Training	\$2,650		\$2,650
<b>Website</b>			
Banner Development	\$5,500		\$5,500
Development/Design/Organization/Content Management	\$34,450		\$34,450
Quarterly Newsletter Content	\$2,375		\$2,375
Weekly Web site Conference Calls	\$5,150		\$5,150
Response to e-mails submitted to Web site	\$2,485		\$2,485
<b>Public Relations</b>			
Media Outreach and Follow-up	\$7,175		\$7,175
Events (Planning/Coordination/Execution/Vendor Costs)	\$29,500		\$29,500
Press Kit/Talking Points Development	\$12,200		\$12,200
Press Release Development and Distribution	\$14,350		\$14,350
Clipping Service		\$4,000	\$4,000
Dubbing, Video Editing	\$4,525	\$5,000	\$9,525
Media Hit Reporting	\$3,975		\$3,975
Media Buying/Tracking (Media Management)	\$15,950		\$15,950
Demonstration Sites/Events	\$7,200		\$7,200
List Purchase/Postage/Mail House - Municipalities Direct Mail		\$2,250	\$2,250
List Purchase/Postage/Mail House - Trade Allies Direct Mail		\$3,750	\$3,750
List Purchase/Postage/Mail House - Small Business Direct Mail		\$7,500	\$7,500
List Purchase/Postage/Mail House - Medium Business Direct Mail		\$7,500	\$7,500
List Purchase/Postage/Mail House - Large Business Direct Mail		\$750	\$750
List Purchase/Postage/Mail House - Schools Direct Mail		\$2,250	\$2,250
List Purchase/Postage/Mail House - College/University Direct Mail		\$150	\$150
List Purchase/Postage/Mail House - Pre-Show Direct Mail		\$15,000	\$15,000
Outreach & Education (including direct mail campaigns)	\$32,975		\$32,975

## Appendix A: 12-Month Marketing Activity Plan

Promotional Contest Development/Management/Prizes			\$0
Event Support (Labor, Sponsorships, Registration, Vendors, etc)			
Globalcon	\$2,810	\$1,500	\$4,310
EEI National Accounts	\$4,515	\$10,000	\$14,515
League of Municipalities	\$6,025	\$5,000	\$11,025
NJ School Boards Association	\$4,450	\$5,000	\$9,450
NJBIA	\$4,450	\$2,500	\$6,950
NJ AIA	\$3,715	\$2,500	\$6,215
NJ Clean Energy Conference	\$3,925	\$1,000	\$4,925
Press Events/Workshops/Speaker Support/Comm Prt Mtgs	\$7,625	\$10,000	\$17,625
Conference/Meeting Attendance & Expenses	\$5,375	\$500	\$5,875
Creative Services			
Collateral Material/Exhibits/Banners/Forms/Signs, etc.	\$55,425		\$55,425
Audio/Video/Production/Studio Time/Talent	\$11,350	\$15,000	\$26,350
Trade Publication Advertisements	\$43,075		\$43,075
Development/Management of Cooperative Marketing Programs			\$0
Photography - Purchased & Specifically Shot	\$5,350	\$20,000	\$25,350
<b>Fixed Component Total</b>	<b>\$574,325</b>	<b>\$125,675</b>	<b>\$700,000</b>
Paid Media			
Print (Trade Publications, Newspapers, Magazines, Newsletters)		\$450,000	\$450,000
Electronic Display/Association Newsletters		\$50,000	\$50,000
Television/Video/PSA		\$50,000	\$50,000
Radio		\$50,000	\$50,000
Outdoor		\$50,000	\$50,000
Overnight Delivery		\$1,000	\$1,000
Printing & Production			
Brochures, Displays, Applications, etc		\$25,000	\$25,000
Direct Mail Pieces		\$20,000	\$20,000
Promotional Items		\$9,000	\$9,000
Co-op Payments on Approved Projects			\$0
Variable Contingency (not including labor or travel costs)		\$150,000	\$150,000
<b>Variable Component Total</b>		<b>\$855,000</b>	<b>\$855,000</b>
<b>Grand Total</b>	<b>\$574,325</b>	<b>\$980,675</b>	<b>\$1,555,000</b>

The 2009 Marketing Budget will be allocated back to the individual Commercial & Industrial Programs based on an agreed upon ratios will be related to the estimated costs associated with each Program.

**Appendix B**  
**2009 Clean Energy Conference**

## **Background**

The Clean Energy Conference has become a signature event for New Jersey's Clean Energy Program. Our goal for 2009 is to continue to improve the visibility and exposure of the conference and for the State of New Jersey to achieve national recognition for hosting one of the industry's most important events.

In addition to the conference, this plan includes tasks associated with the Leadership Awards process, continuing to recognize organizations that exemplify a commitment to energy efficiency and the use of renewable energy sources to reduce their carbon footprint.

The 2007 awards conference, *Partnering for Climate Change Solutions*, offered a comprehensive two-day schedule at the New Brunswick Hyatt, featuring a municipal/technical workshop track on Day 1 along with an opening reception and networking event. Day 2 followed a similar program as in previous years, including the public presentation of the 2007 Clean Energy Awards. The Conference reached over 800 attendees; the third year in a row of increased attendance, and provided a large audience for sponsors and exhibitors. Conference sponsorships were sold out for the second consecutive year, despite a cost increase.

The 2008 awards conference had a new focus and theme: *Investing in a CleanTech Economy*. In addition to the change in theme, there was a change in location, to the Jersey City Hyatt Regency, as well as a shift back to a one day format. The goal of the 2008 Conference is to continue to build the prestige and recognition of New Jersey's Clean Energy Program and the Board of Public Utilities.

Management of Clean Energy Leadership Awards Program & Conference will be transitioning from OCE Oversight Budget to the TRC Budget. As the detailed scope and format of the 2009 Conference is undefined at this time, a portion of the conference expenses will be budgeted as a variable marketing expense.

## **Basic Format & Approach**

Given the level of planning and the need to include a number of individuals who play key roles in the NJ Clean Energy Program, the tasks described in this plan begin far in advance of the conference itself. Even after the conference is completed and evaluated, publicity around the leadership award winners continues well into December, making this a full year plan with the following highlights:

- **Awards & Conference Target Audience** — As in years past, the target audience for the conference includes leaders within mid- to large-size businesses in New Jersey, especially those for whom energy use and renewable energy are important factors; municipalities, local government, and school officials; and organizations that work with these two segments to further the clean energy goal such as vendors, suppliers, energy consultants and contractors, manufacturers and investors; current Clean Energy Program trade allies; and the media who will cover the event.

- **Conference Format** — Returning to a two day format will be an important change as we work to elevate the conference and the benefit it promises to attendees. At this early stage of the planning, we envision a conference theme centering on "news you can use" with speakers dedicated to presenting a heavy dose of technologies and applications that are commercially available and ready for adoption as well as case studies/success stories. Innovation in terms of energy efficiency and renewable energy will also be featured at the conference, but we expect a strong response from the target audience to an overarching theme of practicality and currently-available approaches for significant energy savings that are achievable right now. The tie-in to the New Jersey Energy Master Plan and the Governor's goals will be a major focus.
- **Professional Conference Planner** — An experienced conference planning staff will be assigned responsibility for managing the hotel/conference facility RFP process, identifying and recommending appropriate speakers, securing their participation, developing the agenda for the conference and all of the individual workshops, managing the conference registration vendor (a memorandum of understanding will be negotiated with Rutgers University to continue their role as conference registrar with similar responsibilities), securing exhibitors and sponsors for the event, managing the details during the conference and acting as the host. In addition, this staff will be responsible for facilitating technical staff in the process of reviewing award nominees and recommending winners for NJ BPU selection.
- **Promotion** — The plan includes a number of marketing and public relations tactics prior to the conference to ensure a high degree of awareness within the target audience, the media, and the potential exhibitors (additional opportunities for sponsorship may include coffee breaks/mugs, badges, room keys, breakout room names). Following the conference, additional promotional tactics are planned in association with announcing and congratulating the winners of the leadership awards. The promotion plan includes public relations (press releases, high-level PR support including talking point development, story line creation and media outreach) Direct marketing (e-mail blasts, save the date postcards, invitation self mailers, flyers), Print and Online advertising (announcement ads and award winner media schedule), and the NJ Clean Energy Program Web site. An additional promotional focus for the 2009 conference will be on leveraging outreach from the numerous professional and trade associations already connected to the Market Managers' 2009 marketing plans.
- **Event Management** — In addition to hosting the conference, the plan includes signage, program and conference materials, coordination of PowerPoint presentations from speakers, premium giveaways, and award winner trophies and certificates.
- **Awards Packages** — Award winners receive a generous recognition package including a press event, awards announcement and promotion opportunity with the NJ BPU, recognition in their regional newspaper and/or appropriate magazines, award presentation during the conference, announcement at the annual League of Municipalities Conference, promotion on the NJCEP Web site, and use of the Clean Energy Leader of the Year logo.

## **Budget Categories**

### **Fixed Cost Categories:**

- Dedicated conference planner and support staff
- Ability to process credit card payments if done in-house
- Site selection and negotiation
- Site management including floor plans, workshop locations, catering, stage setup
- Reporting and budget management
- Travel
- Meeting coordination, agenda preparation and attendance at meetings. Conference committee meetings are monthly with a smaller Working Group meeting on a weekly basis.
- Coordination with the Conference and Awards Committees/Sub-Committees, Marketing & Communications Committee, BPU Communication staff and OCE personnel for awards.
- All aspects of public relations promoting both the Conference & Leadership Awards including strategy, conference promotion, media planning, press kits, etc
- Awards management including solicitation of awards, collection of nominations, and coordination of review, approval and notification process. Awards are presented at the Conference and again at a press/PR event at each winner's location.
- Keynote, plenary, and workshop speaker identification, recruitment and coordination
- Creative development of all conference materials, including development of compilation and individual 2008 Leadership winner print ads to be placed first quarter 2009. Files will be provided of all previous conference materials.
- Creative development of and content collection for the event program, includes collecting ads for exhibitors and sponsors
- Creative development and content collection of Conference Materials including speaker biographies, exhibitor floor plans, conference evaluation survey and work shop locations
- Updating of conference and awards section on the NJCEP website, including ongoing agenda updating, sponsor/exhibitor listing and media materials, posting information on the 2008 winners and posting speaker presentations following the event
- Development of save-the-date, announcement and invitation email blasts for awards and conference
- Management and solicitation of sponsors and exhibitors including revising all forms and developing 2009 registration form
- Overall event coordination and management day of event
- Post event evaluation
- Development of signage at event including tent cards, sponsor signs, banners, stage signs, and press/ speaker registration signs.
- Coordination of and scripting for keynote, plenary, and BPU PowerPoint presentations
- Development of rotating ppt slides that run prior to the event, during lunch, and on monitors throughout the location
- Assistance with BPU PowerPoint content
- Coordination with and management of conference registrar if that method is chosen
- Solicitation and coordination of media sponsors, and “partner sponsors”, NGO's, and State departments who are in-kind or paid sponsors.

**Variable Cost Categories:**

- Hotel or conference center expenses
- All paid media supporting the conference and leadership awards. This will include promoting the 2008 winners in first quarter 2009.
- Video taping or recording expenses
- Printing
- Mailing list purchase
- Mail shop and Postage fees
- Purchase of awards, frames, premium items, etc.
- Ad hoc requests to be approved in advance

**Contract Management**

TRC will manage the proposed 2009 Clean Energy Conference and Leadership Awards Program in accordance with those precepts set forth in its response to RFP 06-X-38052, its already-accepted *Operational Procedure Manual*, as well as Treasury’s specific accounting and invoicing requirements. These documents include procedures for communicating with the State Contract Manager, including but not limited to status meetings and monthly, quarterly, and annual reports.

**Contract Schedule**

The 2009 Clean Energy Conference and Leadership Awards Program will be implemented over the course of one program year with the Conference itself anticipated to be scheduled in October, 2009.

**Mobilization and Implementation Plan**

The TRC and subcontractor staff to be assigned to this scope are not presently working full time on other programs. They are available upon notice-to-proceed and mobilization will not be required.

**Changes from Current Programs**

The 2009 Clean Energy Conference and Leadership Awards Program is a change from the current program in that it is an increase in scope and budget from the 2008 Plan.

**Potential Problems**

Since TRC will not have approval to proceed with this contract modification until January, 2009 at the earliest, it will have less than nine months to plan and deliver the conference. Industry standards for a conference of this scope generally mandate at least twice that amount of calendar time. This extremely constrained schedule could generate the following challenges: difficulty obtaining desired venue, difficulty obtaining desired date, and increased price. TRC’s approach to minimizing these potential problems will include assigning the most experienced staff available to this task, and having those staff immediately available upon notice to proceed.

## **Resumes**

TRC's background and qualifications, including staff resumes of the personnel named for this program, are described in *Section 3, Organizational Support & Experience*, of its original proposal in response to Treasury's RFP 06-X-38052.

## **Backup Staff**

The TRC and Parker and Partners staff time of those who will implement this scope of work over its one year duration add up to significantly less than their combined full time over that period. It is therefore unlikely that backup staff will be required for this scope. If necessary, TRC maintains a pool of professionals from which we will send a replacement if presently-assigned staff are unable to complete the scope. Should additional key personnel be recruited to assist in the implementation of this Amendment, TRC will provide Board and Purchase Bureau staff with a copy of the individual's resume and hourly rate for approval and inclusion in the contract.

## **Subcontractors**

Parker and Partners was TRC's originally-proposed marketing subcontractor and is qualified to assist in the implementation of this scope. Additional subcontractors such as hotel, printers, photographers and suppliers will be needed to deliver these services. These entities are not known at this time but will be selected using a competitive process. In addition, Rutgers University has delivered conference registrar services for each of the Clean Energy Conferences to date. Based on their unique qualifications TRC proposes to continue using Rutgers as a subcontractor.

## **Pricing Schedule**

The budget table below shows the proposed 2009 Clean Energy Conference and Leadership Awards Program budget:

## Appendix B: 2009 Clean Energy Conference

NJ Clean Energy - Commercial & Industrial Program Conference & Leadership Awards Budget - 2009																
	Project Manager		Account Director		Creative Director		Art/Copywriter		Acct Exec/Fin Dtr/Planner		Acct Coordinator		Total Labor Cost	Other Expense	Description	Total
	Hours	Cost (@\$160)	Hours	Cost (@\$105)	Hours	Cost (@\$105)	Hours	Cost (@\$95)	Hours	Cost (@\$85)	Hours	Cost (@\$75)				
<b>Fixed Components</b>																
Conference Planning																
Site Selection and Negotiation	10	\$1,600	10	\$1,050					40	\$3,400			\$6,050			\$6,050
Preparation - floor plans, workshop locations, catering stage setup	10	\$1,600							40	\$3,400	10	\$750	\$5,750			\$5,750
Reporting and Budget Management		\$0	18	\$1,890					15	\$1,275			\$3,165			\$3,165
Weekly Meetings - coordinate, prepare agenda, facilitate		\$0							135	\$11,475	20	\$1,500	\$12,975			\$12,975
Ongoing Coordination with BPU, OCE, PC, Market Mgrs Committees	50	\$8,000	25	\$2,625					80	\$6,800	5	\$375	\$17,800			\$17,800
Awards Selection Process - coordinate, prepare agenda, facilitate meetings	125	\$20,000							90	\$7,650	10	\$750	\$28,400			\$28,400
Conference Planning Travel														\$12,000	Employee Exp	\$12,000
Speaker Identification Process - coordinate and recruit	150	\$24,000	15	\$1,575					15	\$1,275			\$26,850			\$26,850
Coordinate and Script - keynote, plenary and BPU	10	\$1,600							5	\$425	5	\$375	\$2,400			\$2,400
PowerPoint Assist BPU with Developing PPT Content	20	\$3,200	6	\$630									\$3,830			\$3,830
Coordination and Management of Conference Registrar	10	\$1,600							25	\$2,125			\$3,725			\$3,725
Solicitation/Coordination of Sponsors - media, partners, etc	25	\$4,000							50	\$4,250			\$8,250			\$8,250
Premiums - research alternatives, manage purchasing/production									5	\$425	10	\$750	\$1,175			\$1,175
Sub-total	410	\$65,600	74	\$7,770	0	\$0	0	\$0	500	\$42,500	60	\$4,500	\$120,370	\$12,000		\$132,370
<b>Creative Services</b>																
E-mail Blasts - save date/announcement/invitation (conference & awards)	5	\$800	4	\$420	18	\$1,890	20	\$1,900	30	\$2,550	30	\$2,250	\$9,810	\$2,500	Interactive Expert	\$12,310
Print Ads for 2008 Award Winners (8 individual & 1 compilation)	5	\$800	4	\$420	38	\$3,990	70	\$6,650	50	\$4,250	85	\$6,375	\$22,485	\$5,000	Photographer	\$27,485
Event Program (incl collection of content & resizing exhibitor/sponsor ads)	3	\$480	3	\$315	16	\$1,680	40	\$3,800	20	\$1,700	35	\$2,625	\$10,600			\$10,600
Materials - bios/floor plans/evaluation survey/workshop location maps	2	\$320	2	\$210	12	\$1,260	20	\$1,900	10	\$850	30	\$2,250	\$6,790			\$6,790
Signage - tent cards, banners, signs for stage, sponsors registration tables		\$0		\$0	8	\$840	20	\$1,900	5	\$425	15	\$1,125	\$4,290			\$4,290
Rotating PPT Slides - for prior to event, during lunch, and location monitors	2	\$320	2	\$210	8	\$840	15	\$1,425	5	\$425	20	\$1,500	\$4,720			\$4,720
Ad Design - announcement & nominee print ads/conference flyer	3	\$480	3	\$315	16	\$1,680	50	\$4,750	25	\$2,125	30	\$2,250	\$11,600			\$11,600
Direct Mail Design - invitation & chairman mailers/save date postcard	5	\$800	4	\$420	28	\$2,940	50	\$4,750	40	\$3,400	70	\$5,250	\$17,560			\$17,560
Sub-total	25	\$4,000	22	\$2,310	144	\$15,120	285	\$27,075	185	\$15,725	315	\$23,625	\$87,855	\$7,500		\$95,355
<b>Website Services - update and manage</b>																
Site Banner Ad	2	\$320	2	\$210			8	\$760	5	\$425	8	\$600	\$2,315			\$2,315
Award Page	2	\$320	2	\$210			4	\$380	5	\$425	8	\$600	\$1,935			\$1,935
Conference Page and Agenda Information	2	\$320	2	\$210			4	\$380	5	\$425	8	\$600	\$1,935			\$1,935
Sponsor/Exhibitor Listings		\$0		\$0			4	\$380	5	\$425	8	\$600	\$1,405			\$1,405
Media Materials		\$0		\$0			4	\$380	5	\$425	8	\$600	\$1,405			\$1,405
2008 Award Winner Information	4	\$640	4	\$420			4	\$380	5	\$425	8	\$600	\$2,465			\$2,465
2008 Speaker Presentations		\$0		\$0			4	\$380	5	\$425	8	\$600	\$1,025			\$1,025
Solicitation/Management of Sponsors & Exhibitors		\$0		\$0			4	\$380	5	\$425	8	\$600	\$1,405			\$1,405
Develop 2009 Registration Form		\$0		\$0			8	\$760	5	\$425	8	\$600	\$1,785			\$1,785
Sub-total	10	\$1,600	10	\$1,050			40	\$3,800	45	\$3,825	72	\$5,400	\$15,675	\$0		\$15,675
<b>Public Relations</b>																
Strategy Development/Media Planning		\$0	5	\$525					40	\$3,400	15	\$1,125	\$5,050	\$10,000	Consultant	\$15,050
Press Kit/Talking Points Development	40	\$6,400					15	\$1,425	35	\$2,975	20	\$1,500	\$12,300	\$5,000	Consultant	\$17,300
Conference Press Release Development and Distribution		\$0					15	\$1,425	35	\$2,975	5	\$375	\$4,775	\$5,000	Consultant	\$9,775
Conference Promotion - outreach and follow up	40	\$6,400						\$0	50	\$4,250	5	\$375	\$11,025	\$20,000	Consultant	\$31,025
Clipping Service		\$0						\$0		\$0		\$0	\$4,000	Vendor	\$4,000	
Press Events at 8 Award Winner Locations		\$0						\$0	75	\$6,375	25	\$1,875	\$8,250			\$8,250
Public Relations Travel		\$0						\$0		\$0		\$0	\$5,000	Employee Exp	\$5,000	
Award Winner Press Release Development and Distribution		\$0					15	\$1,425	10	\$850	10	\$750	\$3,025			\$3,025
Sub-total	80	\$12,800	5	\$525			45	\$4,275	245	\$20,825	80	\$6,000	\$44,425	\$49,000		\$93,425
<b>Conference Management</b>																
Conference Management Travel		\$0											\$0	\$10,000	Employee Exp	\$10,000
Overall Coordination and Management on Day of Event	100	\$16,000	16	\$1,680					22	\$1,870	22	\$1,650	\$21,200			\$21,200
Post Event Evaluation		\$0							6	\$510	6	\$450	\$960			\$960
Sub-total	100	\$16,000	16	\$1,680					28	\$2,380	28	\$2,100	\$22,160	\$10,000		\$32,160
<b>Fixed Component Subtotals</b>	<b>625</b>	<b>\$100,000</b>	<b>127</b>	<b>\$13,335</b>	<b>144</b>	<b>\$15,120</b>	<b>370</b>	<b>\$35,150</b>	<b>1,003</b>	<b>\$85,255</b>	<b>555</b>	<b>\$41,625</b>	<b>\$290,485</b>	<b>\$78,500</b>		<b>\$368,985</b>
<b>Variable Components</b>																
Hotel or Conference Center Expenses													\$250,000			
Conference Registrar Services (Rutgers)													\$50,000			
<b>Paid Media</b>																
Print & Online (Conference Announcements & Call for Award Nominations)													\$75,000			
2008 Award Winners Media Buy (placed in 1Q 2009)													\$250,000			
Overnight Delivery													\$1,000			
<b>Printing &amp; Production</b>																
Save-the-Date Postcard													\$4,000			
Invitation Self-Mailer (printing only - mail shop & postage by Rutgers)													\$6,500			
Chairman Mailer (incl mail shop & postage, Q=350)													\$2,000			
Conference Flyer													\$6,100			
Conference Signage													\$3,500			
Conference Program													\$11,000			
Conference Materials													\$5,000			
Video Taping/Recording Expenses													\$12,500			
Awards, Frames, Premium Items													\$0			
Variable Contingency (for approved ad hoc requests)													\$0			
<b>Variable Component Subtotals</b>													<b>\$677,500</b>			
<b>Estimated Gross Budget</b>													<b>\$290,485</b>	<b>\$756,000</b>		<b>\$1,046,485</b>
Expected Revenue from Sponsors, Exhibitors, Registrants														\$275,000		
<b>Estimated Net Cost</b>													<b>\$290,485</b>	<b>\$481,000</b>		<b>\$771,485</b>

**Appendix C**  
**2009 Program Budgets**

Budget

**New Jersey's Clean Energy Program  
C&I Energy Efficiency Program Reporting Categories  
TRC's Proposed 2009 Budget**

Program	Total Actual NJCEP Expenditures	Admin.and Program Development	Sales, Marketing, Call Centers, Web Site	Training and Technical Support	Rebates, Grants and Other Direct Incentives	Rebate Processing, Inspections, Other Quality Control	Performance Incentives	Evaluation & Related Research
(All numbers 000's)								
<b>COMMERCIAL &amp; INDUSTRIAL EE PROGRAMS</b>								
<b>Commercial/Industrial Construction</b>								
<i>C&amp;I New Construction (includes P4P NC)</i>	\$9,999	\$323		\$692	\$8,475	\$442	\$67	\$0
<i>C&amp;I Retrofit</i>	\$19,864	\$823		\$723	\$16,315	\$1,890	\$113	\$0
<i>CHP (prior years commitments only)</i>	\$15,992	\$37		\$0	\$15,914	\$41	\$0	\$0
<i>New School Construction &amp; Retrofit</i>	\$6,747	\$294		\$572	\$5,104	\$717	\$60	\$0
Local Government Energy Audit	\$4,998	\$55		\$0	\$4,098	\$834	\$11	\$0
Direct Install	\$10,189	\$343		\$10	\$9,548	\$225	\$63	\$0
Pay for Performance (includes CHP component)	\$23,252	\$340		\$747	\$21,903	\$199	\$63	\$0
TEACH	\$600	\$48		\$348	\$162	\$0	\$0	\$42
Marketing	\$1,555		\$1,555					
2009 Clean Energy Conference and Awards	\$1,046		\$1,046					
<b>TOTAL C&amp;I Programs</b>	<b>\$94,242</b>	<b>\$2,263</b>	<b>\$2,601</b>	<b>\$3,092</b>	<b>\$81,519</b>	<b>\$4,348</b>	<b>\$377</b>	<b>\$42</b>

**Appendix D**  
**2009 Performance Incentives**

### Overview

The Market Manager RFP indicated that winning bidders would be eligible to earn financial incentives for good performance. However, the specific goals articulated in the RFP were only appropriate in the program context in which they were developed i.e. for the programs as they existed in 2005. A revised set of goals was established, filed and approved by the Board of Public Utilities for program years 2007 and 2008. This Appendix presents an updated performance incentive structure and goals for program year 2009.

### Incentive Levels

The maximum total dollar values of the financial incentives that TRC would be eligible to receive for its first year performance were established in the Market Manager RFP. As provided for in the RFP, the incentive levels can be adjusted up by 3% each program year to account for inflation between program years. The values in the RFP were used for our first year (2007) filing. For our second year (2008), these numbers were adjusted up by 3% and the number shown in this Appendix for 2009 have been adjusted up by 3% as well. The resulting maximum value of 2009 performance incentives is \$376,620 for commercial & industrial efficiency programs.

### Incentive Structure

Sixty-seven percent (67%) of the total incentive dollars are allocated across program goals related to lifetime electricity savings (MWh) and lifetime gas savings (Dth) to which all programs contribute. The remaining 33% are allocated to a variety of individual program goals for existing commercial & industrial programs.

We have proposed a set of minimum requirements necessary to earn any performance incentives. Those minimum requirements apply at the sector level. That is, if any of the minimum requirements for the commercial & industrial efficiency programs are not met, no performance incentives can be earned.

### Performance Goals

All goals are expressed as 2009 calendar year goals; savings and other achievements attained between January 1, 2009 and December 31, 2009 count toward goal achievement. Savings will be calculated on completed projects which have been invoiced by the Market Manager to the Office of Clean Energy during this period. Efficiency savings are based on the algorithms in the Protocols to Measure Resource Savings that have been approved by the Board.

The goals for efficiency and renewable programs, as negotiated with the Office of Clean Energy, were based largely on past program experience in New Jersey, with adjustments made to account for significant changes in either market conditions or program design. We continue to be faced with challenges in delivering the anticipated level of services to the marketplace, some examples follow. Limited marketing activity took place in 2006 and early 2007 and our proposal to increase program awareness for 2008 was not

## Appendix D: 2009 Performance Incentives

approved until September, 2008. New programs that have stirred excitement in the marketplace have been significantly delayed due to issues beyond TRC's control. The Program experienced a significant slow down in the incentive payment process to customers and contractors which in turn resulted in a decrease in program participation as well as black eye in terms of public perception. We were successful working with staff to resolve and/or improve many of the issues late in the third quarter of 2008 and we continue to work to reverse the trend of a decrease in overall participation in the programs.

Specific commercial & industrial program goals and the performance incentives associated with them are shown in Table C-1.

As shown in Table C-1, the performance incentive will be calculated based on the percentage of achievement as stated in Request for Proposal 06-X-38052 as follows, and shown in the table below:

- “For one hundred to one hundred-nineteen percent (100-119%) of the numerical goal, the award will be sixty percent (60%) of the Performance Incentive listed above.”
- “For one hundred-twenty to one hundred thirty-nine percent (120-139%) of the numerical goal, the award will be eighty percent (80%) of the Performance Incentive listed above.”
- “For one hundred forty percent (140%) or greater of the numerical goal, the award will be one-hundred percent (100%) of the Performance Incentive listed above.”

Minimum requirements for the commercial & industrial programs are provided in Table C-2.

**Appendix D: 2009 Performance Incentives**

Table C-1

Program	Performance Indicator	Lifetime Savings	Maximum Incentive	100% Goal	Maximum Incentive	120% Goal	Maximum Incentive	140% Goal	Maximum Incentive
All	Lifetime Electric MWh Avoided	3,516,000	\$176,635	3,516,000	\$105,981	4,219,200	\$141,308	4,922,400	\$176,635
All	Lifetime Gas DTH Avoided	1,420,000	\$75,701	1,420,000	\$45,421	1,704,000	\$60,561	1,988,000	\$75,701

Program	Performance Indicator	2009 Goal # of units	Maximum Incentive	100% Goal	Maximum Incentive	120% Goal	Maximum Incentive	140% Goal	Maximum Incentive
NC & Schools	Approved Applications	275	\$20,600	275	\$12,360	330	\$16,480	385	\$20,600
Existing Construction	Completed Jobs	2,000	\$62,484	2,000	\$37,490	2,400	\$49,987	2,800	\$62,484
Pay for Performance	Approved Energy Reduction Plan	20	\$15,450	20	\$9,270	24	\$12,360	28	\$15,450
Direct Install Program	Completed Installations	1,000	\$15,450	1,000	\$9,270	1,200	\$12,360	1,400	\$15,450
Municipal Audit Program	Review and Process Audits*	400	\$10,300	400	\$6,180	480	\$8,240	560	\$10,300

\*Audit = A Building

\$376,620

Table C-2: Minimum Requirements for Receiving Commercial/Industrial Efficiency Performance Incentives

Program	Performance Indicator	Minimum Performance Threshold
All	Lifetime Electric MWh Avoided	2,812,800
All	Lifetime Gas Dth Avoided	1,136,000
New Construction/Schools	Approved Applications	220
Existing Construction	Completed Jobs	1,600