

# **Program Proposal**

## **Comprehensive Nonresidential Retrofit Program**

Submitted By:

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Target Sectors: Large Nonresidential Retrofit  
Annual Budget<sup>1</sup>: \$20,000,000  
Energy Saved<sup>2</sup>: 124 million kWh per year  
Peak Demand Reduction<sup>2</sup>: 27 MW  
Cost of Saved Energy: 0.02/kWh lifetime

### **Program Summary**

A broad and flexible program is required to serve the nonresidential retrofit sector. There are three main program types that are typically used to serve this market: Express Incentives, Customized Incentives, and Standard Performance Contracts. “Express” programs provide prescriptive cash incentives for qualified equipment (such as \$10/fixture for a T8 and electronic ballast retrofit or \$60/HP for retrofitting VFDs on HVAC equipment). The application process is simple for the applicant and easy for the administrator. However, there are a large number of measures that can not be fairly incented under such a structure. Program administrators have primarily relied upon the other two options for serving these non-prescriptive measures: Customized Incentives, and Standard Performance Contract. Under both options, incentives are paid based on calculated energy savings. For example, paying \$0.12/kWh plus \$10/kW based on first-yr savings for a controls upgrade at an office building. Customized incentives rely on engineering calculations of the energy savings, while Standard Performance Contract programs rely on measurement and verification of the savings.

The current NYSERDA Enhanced Commercial/Industrial Performance Program (ECIPP) is essentially two programs in one, combining Express and SPC elements. Similarly, the Delaware Energy Answers Program combines Express and Customized Incentive elements. We recommend either of these combined approaches: either combine express and customized elements as DE has done, or combine express and SPC elements as NY has done. The program can serve both small and large nonresidential customers. It is to be expected that small customers will primarily take advantage of the “express” portion of the program, though ESCOs may also involve small customers with multiple sites in the custom or SPC portions.

### **Experience from Other States**

*California* – The California utilities ran several versions of customized incentive programs through the 1990s. They later replaced the customized incentive programs with a Standard Performance Contract (SPC) Program. The SPC program was originally designed to promote performance contracting and required measurement and verification of savings. This program was the template for the New York CIPP program. NY still requires M&V while the M&V requirements were substantially reduced in the CA program.

*New York* – NYSERDA currently administers the ECIPP. It is the latest version of the program that began as the SPC program in 1998. See PON 1101 at <http://www.nyserda.org/Funding/default.asp> for the program specifics. I also encourage a review of the ACEEE “Exemplary Program” analysis of the program.

*Delaware* – Delaware recently launched a program that includes customized incentives for nonresidential customers.

See [http://www.delaware-energy.com/energy\\_answers\\_program\\_home.htm](http://www.delaware-energy.com/energy_answers_program_home.htm)

*National Grid* – Refer to the ACEEE “Exemplary Program” analysis of the “Energy Initiative Custom Program” for a good description of a customized incentive program.

### **How the Program Would be Implemented**

An entity would be set up to administer the program. This could be the utilities, or more likely an independent agency in the mold of NYSERDA or the Energy Trust of Oregon. The administrator sets detailed program rules, accepts applications to the program and processes incentive payments. The administrator markets the program to end-users and to program allies such as lighting contractors, equipment vendors, ESCOs, and A/E firms.

The administrator in all likelihood will rely on outside consultants for technical tasks such as reviewing energy savings calculations for customized measures and conducting site pre-installation and post-installation inspections.

### **Need for the Program**

Commission staff has expressed a desire to focus upon programs that serve residential and small commercial customers. The stated reasoning is that large customers already have the knowledge and wherewithal to make proper energy efficiency choices without program intervention. We urge the Staff to reconsider. The mid- to large-commercial sector is much less energy savvy than this reasoning suggests. Only the largest facilities have a person that spends much time on energy issues. Where such a person exists, their focus is often on procurement issues rather than energy efficiency. Surprisingly perhaps, this is true to a large extent for industrial customers as well. While industrial facilities have technical staff with knowledge of site operations, their focus is on their processes and production. Also any available capital is used for process and production improvements. Therefore, incentives are often necessary to encourage efficiency improvements. Best efficiency practices for items like compressed air are rarely used due to constraints on training and time.

Large nonresidential programs are also typically among the most cost-effective programs in a portfolio. The savings generated from this program can help to offset the higher cost of programs to serve hard to reach customer classes.

### **Program Cost**

The budget proposed above is based upon the current budget in New York. The present NYSERDA ECIPP funding is \$30M for the 18-month period from 9/6 to 3/08. According to IEEA, the nonresidential annual electric sales are nearly the same in PA as in NY. We should thus reasonably expect budgets and impacts to be roughly the same as those in NY.

([http://www.eia.doe.gov/cneaf/electricity/epa/epa\\_sprdshts.html](http://www.eia.doe.gov/cneaf/electricity/epa/epa_sprdshts.html))

### **Barriers / Downsides**

One of the primary barriers is the lack of a network of energy efficiency service providers. Due to the historical lack of significant financial support for energy efficiency, the Commonwealth suffers from a lack of energy efficiency service providers. Programs will take some time to produce results since they are starting from nothing. Though there will be an initial ramp-up

period, in general this “barrier” should be viewed as an opportunity. Jobs will be created<sup>3</sup>. Lighting contractors and controls vendors will do more business and hire additional staff. Manufacturers will sell more VFDs. Energy Services companies will expand their engineering and sales staff within the state, and new ESCOs will likely be formed or enter the marketplace.

As an example, consider a corporate office park. They know, vaguely, that they have opportunities for improving the energy efficiency of the campus but have not acted on this knowledge. With the implementation of the program, they begin to hear more about energy efficiency options through direct program marketing and through their consultants and suppliers beginning to mention it more. Finally they approach, or are approached by, a consultant or ESCO that identifies a number of cost effective projects including lighting retrofits, a new control system, and new chillers. The cost of the project is \$1,000,000 with a 5 year simple payback. The \$200,000 incentive helps close the deal. Who benefits? The customer has new, better functioning equipment and is saving \$200,000 per year. This improves their competitive position with respect to firms in other states, and improves profitability with the attendant increase in tax revenue to the Commonwealth. The contractors have a \$1,000,000 project to construct. The \$1,000,000 will create or support good jobs in the Commonwealth. The \$200,000 of ratepayer funds has stimulated activity far in excess of the direct value.<sup>4</sup>

## Notes

- 1) This funding level is based on the current ECIPP funding level in New York as explained above. Note that the ECIPP program is one of several NYSERDA programs serving this market. Total NYSERDA funding for the nonresidential market is much higher than \$20 million. Were the proposed program to be the only or the main nonresidential program, funding should be significantly higher in order to adequately address the achievable potential.
- 2) The program impact is based upon the ACEEE summary of the NY CIPP program. Specifically, the NY program expenditures through June 2002 were \$73M. These incentives will lead to savings of 452 million kWh per year and reduce peak demand by 100 MW. The estimated impacts are scaled to the proposed budget. If this is to be the main nonresidential program, then budgets should eventually be higher than proposed, and impacts will also be greater.
- 3) The Program Evaluation Report for the **New York Energy Smart** Public Benefits Program examined the economic impacts of the NYSERDA programs. For activities completed through December 31, 2005, the Program “creates and sustains an average of over 4,100 jobs compared to the number of jobs that would have existed in the absence of the program.”
- 4) While the campus example is hypothetical, the figures are consistent with documented program experience. According to the ACEEE summary of the CIPP program, the \$73M of incentives paid through 6/02 helped promote \$315M of capital projects.