EFFECTIVE EFFICIENCY PROGRAMS FOR INDUSTRIAL USERS

Building a strong statewide framework is key to Delaware's success

As Delaware works to create the first statewide energy efficiency programs, the state is at a seminal point in time. [1] Delmarva Power & Light, Chesapeake Gas, the Sustainable Energy Utility (SEU), the state's Division of Energy and Climate as well as the Delaware Electric Cooperative and the Delaware Municipal Electric Corporation all have a stake in developing well-coordinated, customer-centric and effective programs that can help control energy costs for all, grow jobs, keep more energy dollars circulating in-state, and make progress on Delaware's environmental and climate goals.

By working together, building on existing efforts, and drawing from lessons learned in other states, these entities are poised to make lasting and positive impacts on the state's economy and help customers of all sizes control their energy usage.

HIGH EFFICIENCY POTENTIAL WITH INDUSTRIAL USERS

While it's important to design and deliver programs for all market segments, programs that meet the needs of large customers — particularly those with complex industrial processes — are key to successfully capturing some of the most cost-effective efficiency potential available. Large commercial and industrial (C&I) efficiency programs can save energy for as little as 3 ¢/kwh.[2] Taken in aggregate, investing in energy efficiency can be seen as a least-cost system resource — much cheaper and cleaner than building new power plants or transmission and distribution infrastructure. When a state or region directs more energy dollars towards efficiency instead of new generation, energy costs are driven down for all customers.[3]

BEST PRACTICES IN PROGRAM DESIGN

While it can be challenging to serve industrial customers, innovations in efficiency program delivery are helping even the most sophisticated customers attain ever deeper energy savings. New technologies and strategies including controls, process improvement and Strategic Energy Management[4] can help customers ferret more

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[1] Per legislation passed in 2014: http://legis.delaware.gov/LIS/LIS147.nsf/vwLegislation/SB+150?Opendocument
[2] http://aceee.org/press/2014/03/new-report-finds-energy-efficiency-a
[3] http://www.raponline.org/event/webinar-the-value-of-demand-reduction-induced-price-effects
[4] http://energy.gov/eere/slsc/data-driven-strategic-energy-management

waste out of buildings and industrial facilities. Professional efficiency program managers use their technical expertise, relationships, data-monitoring and custom incentives to help customers learn about and implement cost-effective energy efficiency opportunities. (*See resources below for details*.)

Designing effective programs that are responsive to the needs of customers ensures that they are well-served and feel satisfied in the value that they derive from the programs. Such programs help states and efficiency program managers meet their energy-saving and clean power goals, manage energy demand — particularly at expensive peak times, and integrate efficiency with other energy solutions such as distributed renewables, combined heat and power and energy storage. Within the Northeast, several examples can inform the development of Delaware's large C&I. These include:

Connecticut's approach to customer market segmentation and tailored marketing and delivery of program is one successful model. Understanding and addressing the barriers for businesses and manufacturers to participate in programs is key to their success. The programs have built in flexibility around fiscal calendars and worked with customers to take systematic, multi-year approaches to energy savings.

Putting Strategic Energy Management (SEM)[5] to work and eliminating the previous $2 million incentive cap for the largest accounts when they enter into agreements Customized Solutions Partnerships (CSPs) or Memoranda of Understanding (MOUs) has empowered large users to make long-term investments to drive down energy intensity of their facilities on an on-going basis.[6]

One of the state's largest users — and most prominent examples of successful large-user and utility partnership, is United Technologies Corporation (UTC). UTC and Eversource recently signed a three-year MOU designed to help the company achieve a 15 percent reduction in energy use for all its Connecticut facilities that receive electricity from Eversource. That is an estimated 54 million kilowatt-hours of power saved over the three-year period, and is the equivalent to powering over 6,000 homes with electricity for one year.[7]

Vermont is another state that has been a leader in efficiency programs offered for commercial and industrial customers. Efficiency Vermont's innovative and responsive programs[8] help customers realize continuous energy improvement through building relationships and trust, understanding the issues and concerns unique to plant managers, and developing flexibility and responsiveness to companies' fiscal limitations and cycles.

Efficiency Vermont account managers and technical staff work with customers to develop a deep understanding of industrial processes. Through state-of-the-art, real-time energy monitoring via its Energy Management Information System, Efficiency Vermont helps customers understand how and when energy is being used in order to identify patterns and opportunities. For example, through its Continuous Energy Improvement program, Efficiency Vermont states that its participants cut energy consumption by 10–15 percent in the first three years, and 25–35 percent in the first six years.[9]

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[5] http://energy.gov/eere/slsc/data-driven-strategic-energy-management

[6] http://www.ct.gov/deep/lib/deep/energy/conserloadmgmt/2016_2018_CLM_PLAN_FINAL.pdf, pg. 323

[7] http://www.utc.com/News/Pages/UTC-Collaborates-with-Eversource-to-Identify-Energy-Savings-Opportunities.aspx

[8] https://www.efficiencyvermont.com/For-My-Business/CEI

[9] http://aceee.org/sites/default/files/pdf/conferences/eer/2015/Tim_Perrin_Greg_Baker_Session5A_EER15_9.22.15.pdf

IMPACTS OF "OPT-OUT"

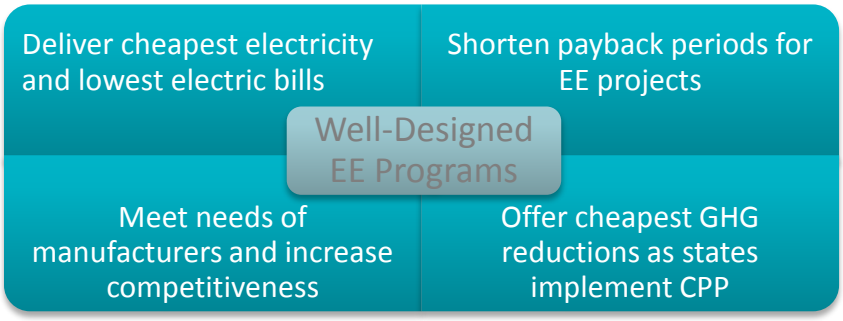
Even before the new Delaware programs are launched, the Delaware Energy Users Group[10] is pushing for some industrial customers to have the ability to "opt out" efficiency programs, under the premise that they have done all the efficiency that they can or they know how to better conduct efficiency projects on their own. In some states where this has happened, the result has been decreased efficiency budgets — weakening program offerings for all business customers.

One example NEEP would point to is the experience of Massachusetts, a state long-recognized for its leadership in energy efficiency programs and policies. Massachusetts recently concluded a three-year pilot to allow for "accelerated rebates," a type of opt-out for the largest five customers in the service territories of each of the state's electric and gas utilities. [11]

According to some utility program administrators, far less energy has been saved by these very large electric and gas customers than they would have saved had they stayed in the statewide energy efficiency programs, Mass Save®. Further, according to the utility, those who chose to opt-out of the programs and run their own projects were still heavily reliant on the technical support of the utility program administrators, drawing resources away from other customers while the overall pool of funding was reduced.

When faced with the choice, many of these largest customers ultimately decided there would be far greater value in staying in the Mass Save® programs, having the guidance of the program administrators, and avoiding the complexities and uncertainties of running their own programs. To date, the pilot is not being renewed.

Before any decisions are made regarding opt-out provisions to the Delaware energy efficiency program framework, NEEP would suggest that the Energy Efficiency Advisory Council, the Division of Energy and Climate, the Public Service Commission, the efficiency program administrators and other stakeholders carefully examine how such provisions have affected energy efficiency programs in other states, including impacts to the overall program delivery structure and remaining funding for other customer segments; the resulting efficiency savings that can count toward state policy goals; and the processes for quantifying savings from opt-out customers through evaluation, measurement and verification that are at least as rigorous as those applied to the state's regulated utilities.



Graphic courtesy of the Alliance for Industrial Efficiency

[10] http://www.cblaw.com/practice_areas/practices.aspx?id=92

[11] https://malegislature.gov/Laws/GeneralLaws/PartI/TitleII/Chapter25/Section19. Final report on the pilot is pending.

RESOURCES & FURTHER READING

NEEP is available to connect policymakers and efficiency program administrators with peers in other states to learn about experiences and share insights. We recommend the following resources:

From the State and Local Energy Efficiency Action Network (SEE Action)[12]

- *Industrial Energy Efficiency: Designing Effective State Programs for the Industrial Sector*
- *Sustained Energy Savings Achieved through Successful Industrial Customer Interaction with Ratepayer Programs: Case Studies*

From the Alliance for Industrial Efficiency[13]

- *Industrial Energy Efficiency and the Clean Power Plan: A Briefing Packet for States*
- *Alliance Factsheet: Manufacturers Save Big with Utility Industrial Energy-Efficiency Programs*

From the American Council for an Energy-Efficient Economy (ACEEE)[14]

- *Industrial Efficiency Programs Can Achieve Large Energy Savings at Low Cost.* *An overview of the benefits of industrial programs and a list of 10 tips for designing good industrial energy efficiency programs.*
- *The Dollars and Cents of Industrial Efficiency Program Investment.* *How the combined investment of utility and customer dollars saves more energy and provides added value to customers.*
- *Overview of Large-Customer Self-Direct Options for Energy Efficiency Programs.* *The status of self-direct programs and opt-out provisions by state and tips for designing successful self-direct programs.*
- *Myths and Facts about Industrial Opt-Out Provisions.*

From NEEP

- *NEEP Policy Brief: Best Practices for Shared Efficiency Program Administration*
- *The 2016 Regional Roundup: Next Generation Energy Efficiency*
- *Highlights* Policy Newsletter

ABOUT NEEP

Northeast Energy Efficiency Partnerships (NEEP) is a regional non-profit organization that works to accelerate energy efficiency in homes, buildings and industry across the Northeast and Mid-Atlantic states. We are one of six Regional Energy Efficiency Organizations (REEOs), designated by the U.S. Department of Energy to provide technical guidance to states.

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This information is compiled by NEEP staff and does not necessarily reflect the opinions of our board or funders.

[12] SEE Action is a project of the U.S. Department of Energy (DOE) that advances state and local investment in energy efficiency. https://www4.eere.energy.gov/seeaction/

[13] http://alliance4industrialefficiency.org/resources/type/fact-sheets/

[14] http://aceee.org/topics/industrial-energy-efficiency-programs