



# Putting Large Energy Users in the Driver's Seat: Giving Customers More Control with Self-Direct Programs

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The American Council for an Energy-Efficient Economy is a nonprofit 501(c)(3) founded in 1980. We act as a catalyst to advance energy efficiency policies, programs, technologies, investments, & behaviors.

Our research explores economic impacts, financing options, behavior changes, program design, and utility planning, as well as US national, state, & local policy.

Our work is made possible by foundation funding, contracts, government grants, and conference revenue.

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# The large customer problem

- Opt-out provisions exist in 13 states
- More considering opt-out, some before states have even developed comprehensive energy efficiency programs (DE, LA, MS)
- Passage of a large customer exemptions in IL, which eliminates the option to participate in utility programs, even if they want to.

# Why large customers want out

1. Large customers feel they already invest in all cost-effective EE on their own as a matter of good business practice
2. Utility programs are not responsive to the needs of large customers
3. Participation in EE program charges creates a competitive disadvantage & may force companies to relocate to other states
4. Transaction cost or uncertainty of participation too high for the benefit

A response: design something that works for large customers

**Self Direct**

# Defining opt-out and self-direct

- **Opt-out (or exclusion provisions)** allow large customers to stop contributing funding for energy efficiency programs, and may prevent utilities from incentivizing, measuring, or otherwise accounting for these savings in resource planning efforts
- **Self-direct policies** typically allow large customers to control how some or all of their energy efficiency fees are used, but do not allow them to opt out of fees & programs completely

Challenges exist, but good design responds to diverse customer needs



# Principles for self-direct options

- The Self-Direct Program should be simple.
- It should avoid changing rules and "moving targets."
- It should allow customers to spend their own earmarked energy efficiency funds to make effective investments in energy efficiency projects without excessive pre-approvals or bureaucracy.



# Elements to consider in a self-direct

- Allow flexibility for the customer in projects
- Allow for multi-year aggregation
- Provide certainty for funding availability
- Provide an alternative to the utility administrator in cases where there is lack of trust with the customer
- Require verifiable reporting of energy savings
- Provide recourse if customer doesn't spend money

# How utility investment can unlock industrial opportunities



## INDUSTRY INVESTMENTS



## UTILITY INVESTMENTS



## NEW POTENTIAL

*Low-risk, high return private investments. A small percentage of all possible energy efficiency projects.*

Short-term return  
(1–2 years)

*Public infrastructure investments with long-term benefits, like generation, transmission, and distribution systems.*

Long-term return  
(10–20 years)

*Partnered investments the customer would not make alone, but that represent deep energy savings and cost less than utility infrastructure.*

Medium-term return  
(3–9 years)

# Five first-step considerations for self-direct program option

1. Who runs the self-direct?
2. Are customers exempt from fees entirely?
3. Can the utility count the savings?
4. Is the focus on energy savings or customer spending?
5. What is the program planning horizon?

# Fact sheet series on the value of industrial efficiency programs

“Its time to implement good industrial energy efficiency programs in your state”

<http://aceee.org/topics/industrial-energy-efficiency-programs>



## Industrial Efficiency Programs Can Achieve Large Energy Savings at Low Cost

Industrial energy efficiency programs can pay energy savings to society and the utility system that most programs targeted at other sectors of the industrial sector saves more energy per \$ of other customer classes. Capturing energy efficiency programs is one of the best ways to pay for all customers. The amount of electric programs directly displaces the need to invest power plants or transmission and distribution upgrades. If these assets are not built, their cost is recovered in customer rates, keeping direct savings money for all customers in the system.

To achieve these benefits, many states, utility administrators pursue programs aimed at a large amount of energy to power their own industrial plant operations. These programs use a range of technologies and means to reduce energy consumption in the market (measured per unit of production). Because it varies widely by product, process, facility size, application, a one-size-fits-all approach is not possible. A variety of approaches have been used, including programs involving technical assistance sharing, prescriptive rebates, customized retrofits, and energy management systems.

A SMALL GROUP OF CUSTOMERS CAN PROVIDE BENEFITS  
In many utility systems, industrial customers of the energy demand and a significant amount of savings opportunity. For example, among all by Everman Energy, one of New England providers, only 2% of customers account for energy demand. By enabling among the small number of the largest energy users, utility administrators can secure a large amount of effective energy savings.

When the short-term investment criteria of private companies are combined with the longer-term investment capabilities of utilities, many more potential energy efficiency projects become cost-effective. The typical requirement for rapid payback on investment in the private sector may not allow identifying these projects alone, but the availability of utility program dollars often makes the business case for energy and cost savings opportunities that would not otherwise occur.

INDUSTRIAL PERSPECTIVE OF PRIVATE COMPANIES  
Private companies are constrained by a demand for quick, high returns on all of their capital investments. The private business model often hinges on maximizing productivity, limiting spending, and avoiding debt, which requires companies to make investments with very short-term payback periods of just one to two years. This means chief financial officers can consider only a small number of energy efficiency projects—those that meet the criteria of a low-risk, high-return private investment strategy. The few efficiency projects that clear this hurdle are also in competition for funding in the same, limited capital budget as dozens of other high-priority projects in a given year.

UTILITY COMPANIES HAVE MORE FLEXIBLE INVESTMENT REQUIREMENTS AND CAN TOLERATE LONGER PAYBACK SCHEDULES THAN THEIR INDUSTRY CUSTOMERS. THE UTILITY BUSINESS MODEL IS DESIGNED TO INTEGRATE



## The Dollars and Cents of Industrial Efficiency Program Investment



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## Myths and Facts about Industrial Opt-Out Provisions

Even though industrial energy efficiency programs (retrofit) benefits, some states allow large opt-out of them. When large customers skip pay both the utility and the customer suffer the cost of using and paying for more energy than they need. Opt-out provisions limit the consequences of passing opt-out provisions into law are often mistaken both policymakers and large energy users. The discussion outlines four common myths and addresses those misconceptions. The facts may be useful in states where good programs exist, yet a set will make in favor of industrial opt-outs. Be however, that in states where utility programs are effective, the first priority must be to improve it.

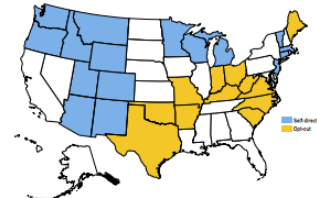
Myth 1. Large energy users will invest in all cost-effective energy efficiency as a matter of good business.

FACTS

- While industrial firms have continued to hire energy efficiency per unit of product output, many have not captured.
- Large business customers report that their investments, including those in energy efficiency, must realize a very short (one- to two-year) payback period, which means that many cost-effective projects will not be initiated.
- Through incentives and rebates, utility programs can "payback gap." An industrial customer normally invests in an energy efficiency program with a four-year payback, but with a program rebate to cover some of the cost, the payback could be reduced to two years, meet customer's short payback requirement.
- Companies do not invest in all cost-effective projects. They have limited capital, and decisions about projects to fund are influenced by many factors including budget allocations, strategic priorities.



## Overview of Large-Customer Self-Direct Options for Energy Efficiency Programs



MAPS SHOW STATES WITH SELF-DIRECT AND LIMITED OPTIONS. SOURCE: STATE ENERGY EFFICIENCY PROGRAMS, PUBLIC UTILITIES REPORT OF AUGUST 1, 2015. FOR REVISIONS TO THE SELF-DIRECT PROGRAMS TO CORRECTED AND INCLUDE CALIFORNIA BY CEET.

Utilities and states are increasingly recognizing the value of energy efficiency programs as the cheapest and lowest-cost energy resource. Energy savings opportunities are available in homes, businesses, and energy users, which can avoid the need for more costly investments in energy supply and distribution infrastructure. Large energy users, such as industrial facilities and institutional customers, that invest in energy efficiency benefit doubly: waste reduction lowers their operating costs and utility bills, while also stabilizing their future rates.

Some of the most cost-effective efficiency programs are those designed for large energy users. On a national level, the industrial energy efficiency programs are the most cost-effective. The programs have been shown to reduce energy consumption by 10-15% and have a payback period of 1-2 years. The programs have been shown to reduce energy consumption by 10-15% and have a payback period of 1-2 years. The programs have been shown to reduce energy consumption by 10-15% and have a payback period of 1-2 years.

states save more energy per program dollar than other customer classes, even though many states harness only a fraction of their industrial energy efficiency potential. Low-cost efficiency opportunities can be found across the country at sites consuming large amounts of energy, and this comprehensive energy efficiency program portfolio should include large energy users to minimize energy efficiency resource costs for all customers.

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# Conclusions

- Need to understand customer needs
- Need to be responsive to their needs
- Need to communicate the value of energy efficiency
- Need to make case why participation is in their benefit
- Need to become a partner with large customers

# Thank You!

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## Upcoming ACEEE Conferences

ACEEE HOT WATER FORUM	MARCH 20-22, 2018	PORTLAND, OR
ENERGY EFFICIENCY FINANCE FORUM	MAY 20-22, 2018	TARRYTOWN, NY
ACEEE SUMMER STUDY ON ENERGY EFFICIENCY IN BUILDINGS	AUGUST 12-17, 2018	PACIFIC GROVE, CA

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