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Industrial Energy Efficiency

Trends, Barriers and Strategies

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EXPERTISE



Efficiency



Renewables



Mobility

SERVICES



Assess
Opportunities



Design
Strategies



Evaluate
Performance



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Project Goals and Methodology

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Project Overview:

- Hired by EfficiencyOne in Nova Scotia to review the needs of their large industrial customers and how well current programs are meeting needs
- Partnership between Dunsky and Energy Performance Services

Project Goals:

- Understand the demand-side management needs of the industrial market
- Identify strategies being used in other jurisdictions

Methodology:



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| **The Industrial Context**

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Industrial attention may be hard to capture - Highly competitive environment for many (e.g. manufacturing, primary industries)

- Pressure related to cost-competitiveness, emerging emissions requirements
- Focused on core business area, feel can't divert attention off of production

Industrials may be skeptical of the value of efficiency programs - High awareness of \$ going to efficiency programs (esp. in jurisdictions with efficiency called out as a line item on bills) and may feel they are not getting value out that they are putting in

Industrial savings are important to capture from a portfolio cost-effectiveness standpoint - Industrial savings are often some of the most cost-effective, supporting the whole portfolio of efficiency savings

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Key Findings: Program Trends



- One-off incentives for lighting, HVAC, compressed air and more
- View of efficiency as on the periphery, not central to key business areas

- Continuous energy improvement through development of energy management culture and structures (SEM, ISO 50001, energy managers, EMIS)
- Recognition of efficiency as a competitive advantage and as being in-line with industry trends such as automation and data analysis (Industry 4.0)

Key Findings: Barriers to Program Participation



Limited time
and/or
resources to
spend on
energy
management



Limited
knowledge of
about energy
savings
opportunities



Internal
competition
for capital
and restrictive
payback
period
requirements
for
investments



Unique needs
and business
drivers

Flexibility

Ease of
Participation

Support for
EM Structures
and Culture

Support
Identifying
Opportunities

Engagement
at all
Organizational
Levels

We'll review each strategy in turn to understand the **why** and **how**, then see how these strategies **relate to the key barriers** faced by Industrial Customers.

Flexibility

Why it's important:

One size doesn't fit all - Industrial customers are unique, and have unique business drivers, capital investment cycles, human and financial resources, and energy management maturity.

What it can look like:

- Open program parameters
- Customized support (beyond incentives)

"To build relationships, you need to do what's right for the customer and trust that projects will come out of that (and they will). Sometimes this means providing guidance and input, rather than jumping right into a project."

- Program Administrator

Ease of Participation

Why it's important:

Industrials have limited resources and are unlikely to spend time navigating complex program applications or processes

What it can look like:

- Single-window model of engagement
- Single applications covering multiple programs

We do not have an application process for large industrial customers – if they want a study, we do everything else; coordinate with and pay the trade ally, do all the paperwork, etc.

- Program Administrator

Support for Energy Management Structures and Culture

Why it's important:

Builds capacity within an organization and recognition of value of energy management, supports development of targets, responsibilities, and process

What it can look like:

- Energy Manager Funding, Strategic Energy Management (SEM), EMIS
- Multi-year program approaches

The relationships side of working with industrials is critical, and SEM can help create those relationships beyond a project-to-project approach. While it may require a larger upfront investment of time, it is for a long-term payoff.

- Program Administrator

Support Identifying Opportunities

Why it's important:

Industrials don't necessarily know who to call (or trust) when it comes to hiring energy efficiency experts

What it can look like:

- An approved vendor list/help vetting consultants/experts
- Industrial cohort groups

"Having experts on specific industrial processes, either on our team or available to contract, allows us to get beyond the usual lighting, compressed air, and HVAC measures, and tackle the types of process-related projects that can have large energy-saving impacts."

- Program Administrator

Engagement across all levels of the industrial organization

Why it's important:

Builds willingness to dedicate staff time and company resources to energy management (exec./upper management); get buy-in from and build accountability in those who will be responsible for energy management activities and tracking (operations)

What it can look like:

- **Tailoring how efficiency is positioned** depending on the audience:
 - A tool for addressing competitiveness and environmental performance
 - Ancillary improvements to health and safety or equipment reliability

"We usually use a light touch with executives, but we still engage. We want to make sure they see the value of what we're doing – we engage enough to show them that we're involved on an ongoing basis and to demonstrate the cumulative impact that we're having to help build support for energy management."

- Program Administrator

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	Strategies				
	Flexibility	Ease of Participation	Programs that Support EM	Support Identifying Opportunities	Engagement across all levels
Barriers to Participation	Limited Time/Resources		X	X	X
	Limited Knowledge of Opportunities			X	
	Internal Competition for Capital and Restrictive Payback Periods				X
	Unique Needs and Business Drivers	X		X	

- Multiple strategies needed to get all barriers highlighted here
- Movement away from one-off projects toward continuous improvement through energy management culture and structures (requiring relationship building, multi-year engagements)
- Need for proactive engagement from program administrators, and repositioning of efficiency as a competitive advantage aligned with industrial trends

Questions?



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