Energy Efficiency in Nova Scotia

Construction Association of Nova Scotia
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WHO WE ARE

• New, independent corporation, dedicated to *saving energy* – and *energy savings* for Nova Scotians
• Taking over electricity efficiency program role from Nova Scotia Power
• Run by Board of Directors, not government
• Regulated by NS Utility & Review Board
WHAT WE PROVIDE

• Programs and financial incentives:
  – For Projects; studies; product purchases
  – For large and small projects/ product purchases to a broad base clients.

• Finance projects additional to the incentives – 0% interest

• We execute these projects fast, flexible and easy.
FAST, FLEXIBLE AND EASY

- **Fast** - Applications are processed in 5 business days
  - Payments for incentives after M&V are within 30 days

- **Flexible** – Program solutions will fit the clients needs; “tell us what you want to achieve”
  - Financing, new technology; staged projects; opportunity identification,

- **Easy** – Turn key retrofits for lighting; simple application forms, straightforward process, support throughout entire project.
WHY ENERGY EFFICIENCY

• Long Term benefit of avoided costs of new power generation
• Efficiency is the lowest cost of energy
• Economic spin off
  – Spend within NS in 2011 – 42 M for efficiency programs plus
• Environmental – reduce greenhouse gas emissions
• Social responsibility – the right thing to do.
• Financial – Excellent business case for investing in Energy Efficiency.
DSM TARGETS

– 2010 energy savings targets
  • 81 GWh, $22.5M budget

– 2011 energy saving targets
  • 158.5 GWh, 41.9 M budget

1 GWh is equal to the yearly electrical energy use of ~111 typical NS households
COMMERCIAL AND INDUSTRIAL PROGRAMS

• C&I Custom
• Business Energy Rebates
• Small Business Lighting Solutions
• Smart Lighting Choices
• Power Right - Direct Install
• New Construction
  – *Tell us what you want to achieve, we can help*
SMALL BUSINESS LIGHTING SOLUTIONS

• For those using fluorescent tube lighting
• Free on-site light energy assessment
• Qualified electrical contractors look after all aspects: permits, ordering, installation, removal, recycling
• Covers 80% of cost; client only pays 20%
• 0% interest on-bill financing
Powered Right Direct Install

- For those using mostly twist-in incandescent bulbs and exit lights
- Trained installers replace incandescent light bulbs and exit lights with CFLs and LED exit lights
- No cost to business
- Remove and dispose of old materials
BUSINESS ENERGY REBATES

• Rebates on approved energy efficient products
• Eligible product categories:
  1. Lighting
  2. Refrigeration
  3. Compressed Air
  4. Heating and Cooling (HVAC)
  5. Motors and Drives (VFDs)
BER ELIGIBILITY

• Equipment must be eligible, per ENSC product lists posted at www.efficiencyns.ca/businessenergyrebates

• Equipment must be new and installed

• ENSC retains right to conduct pre/post-installation inspections for any site
C&I CUSTOM

• Financial incentives for studies, project implementation, and financing for “custom” energy saving projects.

• Directed at the mid-sized to larger commercial and industrial customers

• Intended for projects that will not proceed without an ENSC incentive - no free riders

• Any project funded by this program must save electrical energy
PROJECTS AND ELIGIBILITY

• Typical projects include:
  – lighting, motors, compressed air, industrial processes, refrigeration, HVAC, renewable, etc.
  – Projects that will save at least 20,000 kWh per year

• Not eligible for funding:
  – cogeneration (biomass is eligible)
  – demand-limiting
  – power factor correction
  – fuel-switching (renewable sources are eligible)
• INCENTIVES
  – $1,000 for a scoping study
  – $15,000 for a feasibility study
  – Implementation: the lower of:
    • $0.15 per kWh saved in one year
    • $500,000
    • 50% of eligible customer costs
    • Amount resulting in the customer’s required simple payback (1 year minimum)
  – Interest-free, on-the-bill financing of eligible costs up to $500,000
<table>
<thead>
<tr>
<th>Project Phase</th>
<th>Customer Action</th>
<th>ENSC Assistance</th>
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</thead>
<tbody>
<tr>
<td>Find the Opportunities</td>
<td>• Identify possible measures (customer staff or third party)</td>
<td>• Recommend third party technical assistance</td>
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<td></td>
<td></td>
<td>• Pay 50% (up to $1,000) of costs for third party assistance</td>
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<td>Feasibility Study</td>
<td>• Apply for Study Incentive</td>
<td>• Provide test equipment</td>
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<tr>
<td></td>
<td>• Complete study (customer staff or third party)</td>
<td>• Pay 100% (up to $15,000) of feasibility study costs</td>
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<tr>
<td>Implementation</td>
<td>• Apply for Project Incentive</td>
<td>• Pay project incentive. Could be in phases during implementation.</td>
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<td>• Complete project</td>
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<tr>
<td>Close-Out</td>
<td>• Basic measurement &amp; verification to confirm savings</td>
<td>• Zero interest, on-bill financing of eligible costs</td>
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CUSTOMER BENEFITS

• Fast incentive approval and payment with minimal red tape
• Can “stack” ENSC incentives with those from other incentive programs.
• Customer “owns the project ” selects the consultants, contractors, equipment vendors or can use in-house engineering and installation.
• Test equipment loaned at “no charge” or ENSC pays up to 50% for rental of specialized test equipment
CASE STUDIES

- Industry: Warehousing/Distribution
- Project Details: Lighting Retrofits
- Energy Savings: 243,160 kWh/yr
  or $17,581/yr
CASE STUDIES

• Industry: Manufacturing

• Project Description Lighting Retrofit & Air Compressor Upgrade

• Energy Savings 678,269 kWh (lighting retrofit)
• Energy Savings 359,478 kWh (compressor upgrade)
NEW CONSTRUCTION PROGRAM

• Helps customers design and build more efficient buildings

• Incentives (up to $500k) to exceed codes

• Could see code-level energy use improved by 25%-35%
NEW CONSTRUCTION

• The foundation of the program is the *Core Performance Guide*, a multi-path, flexible program to achieve significant, predictable energy savings in new commercial buildings.

• The *Core Performance Guide* defines high performance criteria for building envelope, lighting, HVAC and controls.
New Construction Core Performance Path (NCCP)

- Applicable to buildings that are 900 to 6,500 square metres (10,000 to 70,000 sq. ft.)
- $1.00/SF of building space for full implementation of a prescribed package of measures
- Building types include:
  - Office
  - School
  - Public Assembly
  - Warehouse
  - Others
Whole Building Path (NCWB)

This path is suited for projects:

• That do not meet the size or building type requirements outlined in the previous path,
• More complex in design, or
• Require more energy modeling for another reason.
C&I PROGRAMS RECAP

• C&I Custom / New Construction (incentives/financing/advice)
• Business Energy Rebates (product rebates)
• Small Business Lighting Solutions (80/20 low cost/financing)
• Powered Right Direct Install (no cost)
• Smart Lighting Choices (supplier incentives/discounts)
CUSTOMER BARRIERS

• Technology – costs will come down if I wait;
• Real Saving Claims?
• Higher priorities and projects
• Time and Resources
• Red Tape – bad experience with other programs
• Clients Payback requirements not met
• Expectation that Efficiency projects are costly.
• Change – easier to “do what has always been done”
TRADE ALLIES

• Significant uptake by Distributors/ Suppliers / Contractors for sales of products/services through ENSC programs.
  - Second look at “stalled “projects too expensive
  - Add value to clients projects with the overall “best cost solution”
  - Avoid “the missed opportunity” for clients.
  - Promote new technologies
  - Sell more and increase client satisfaction
MOVING FORWARD

- Qualified vendors program
- Expanded Products offering – Prescriptive
- Qualified products lists expanded
- Market Segment Promotion “customized /bundled offerings”
- Enhanced Client support activities, technical support, training and promotion for energy efficiency.
SUMMARY

Fast
• Response Time
  – 5 business days
• Incentive payments for your projects.
• Continuous Improvement
  – Fast track applications

Flexible and Easy
• Combine programs
  – Prescriptive, Custom, NC
• Project phases
  – Installment incentives
• Simple application process
• Tell us what you require
C&I PROGRAMS

SOMETHING FOR EVERYONE

• Small and large projects
  – equipment upgrades, retrofits, renovations and new construction
• Integrated programs – blend programs by project and customer requirements taking advantage of all program incentives.
• Call us – you have a project, we have a solution.
HOW TO START – NEXT STEPS

• Visit our website
• Complete an energy audit /scoping study
• Call us to discuss your projects and business requirements for energy saving initiatives.
• We will create an energy saving solution for you!!
Program information/applications

- Business Energy Rebates
  businessenergyrebates@efficiencyns.ca
  www.efficiencyns.ca/businessenergyrebates

- Small Business Lighting Solutions
  businessenergyrebates@efficiencyns.ca
  www.efficiencyns.ca/businessenergyrebates
Program information/applications

• C&I Custom Program
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