



FEB-2004-0526

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RECEIVED

November 30, 2004

DEC - 2 2004

ONTARIO ENERGY BOARD

Mr. John Zych  
Ontario Energy Board  
P.O. Box 2319  
26<sup>th</sup> Floor  
2300 Yonge Street  
Toronto, Ontario  
M4P 1E4

902/12  
Dear Mr. Zych,

**Re: Application for Final Order of Approval - Whitby Hydro's Conservation and Demand Management Plan**

Please accept our application for a final order of approval for the Whitby Hydro Conservation and Demand Management Plan. The plan has been completed in line with Procedural Order #1 issued by the Ontario Energy Board on October 5, 2004. In addition to an electronic copy sent via email, you will find enclosed, nine copies of the plan.

I trust that you will find everything to be in order. If you have any questions, feel free to contact me at (905) 668-5878 ext. 262 or [sreffle@whitbyhydro.on.ca](mailto:sreffle@whitbyhydro.on.ca)

Regards,

Susan Reffle  
Regulatory Financial Manager  
Whitby Hydro Energy Services Corporation

Encl.

cc: Jim Lavelle  
Leta McCulloch - EDA





# WHITBY HYDRO ELECTRIC CORPORATION

## CONSERVATION AND DEMAND MANAGEMENT PLAN

(2004-2007)



Prepared by:

Whitby Hydro Energy Services Corporation

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## **Executive Summary**

### **Overview**

On 31 May 2004, the Minister of Energy wrote to electricity distributors pursuant to section 79.6 of the Ontario Energy Board Act, 1998 and expressed the expectation that the Energy Board will encourage utilities "to begin now to plan, deliver, and evaluate conservation and demand management activities".

Utilities can influence electric end use through demand-side management (DSM) programs and by encouraging and supporting energy-efficient technologies. While these activities often overlap substantially, for the purposes of the options to be discussed, DSM will refer to technologies and practices that are intended to reduce the total demand for electricity and/or produce changes in a utility's load shape that result in a net reduction and savings for the customer.

For the period 2004-2007, Whitby Hydro Electric Corporation has targeted the following activities for Demand Response and Demand Side Management:

- Education and training in regards to energy conservation
- Research and pilot programs related to DSM
- Distributed generation facilities (Bi-fuel)
- Sub-metering
- Power Factor Correction
- Load Balance
- Smart Metering

In recognition of the dynamic nature of the industry, Whitby Hydro will continue to assess and update its plan as new opportunities are presented, and if necessary, re-allocate funds between programs in response to customer demands.

## **Introduction**

### **Background**

On 31 May 2004, the Minister of Energy wrote to electricity distributors pursuant to section 79.6 of the Ontario Energy Board Act, 1998 and expressed the expectation that the Energy Board will encourage utilities "to begin now to plan, deliver, and evaluate conservation and demand management activities". The following specific measures would be supported by the Board:

- Energy efficiency
- Behavioral and operation changes, including the application of benchmarking or "smart" control systems
- Load management measures which facilitate interruptible and dispatchable loads, dual fuel applications, thermal storage and demand response
- Measures to encourage fuel switching which reduces the total system energy for a given end use
- Programs and initiatives targeted to low income and other hard to reach consumers
- Distributed energy options behind a customer's meter such as tri-generation, cogeneration, ground source heat pumps, solar, wind and biomass systems.

In response to the Ministers' expectation, the Board generated the 16 July 2004, "Preliminary Guidelines for Electricity Distributor Conservation and Demand Management Activities" document. This document is the first step in the process to guide utility investment in such activities on a deferred basis and the application and approval for a move to full MARR. Subsequent information bulletins have been released providing more certainty for deferral spending approval under full MARR.

## Program Description

In recognition of the dynamic nature of the industry, Whitby Hydro will continue to assess and update its plan as new opportunities are presented, and if necessary, re-allocate funds between programs in response to customer demands.

### 1) Research

The spending of up to \$25K on research is specifically approved in OEB Procedural Order # 1 (Board File No. RP-2004-203), dated October 5, 2004. Research programs will include Bi-Fuel technologies, sub-metering solutions, and remote communication load control initiatives.

#### Budget:

Amount (\$)	2004	2005	2006	2007	Total
Capital Expense					
Operating Expense	12,500	12,500			25,000
Totals	12,500	12,500			25,000

### 2) Modification of Whitby Hydro Transfer Switch to Facilitate Grid Parallel Operation and Peak Shaving (Pilot)

#### Description:

To make standby generator sets (gensets) useful in utility-sponsored DSM efforts, upgrades are usually required to automate genset operation to make the transfer of power from the utility to the genset and then back again completely transparent to the end user of electricity. This means upgrading to a paralleling system that will softly load and unload the genset. An added benefit to the paralleling upgrades is greatly

improved performance and reliability of the emergency power system (because parallel operation allows gensets to be tested simply and regularly under real-life load conditions with “blipless” power transfers that are completely unnoticed by electricity consumers).

**Customer Classes Affected:**

Bi-Fuel conversion of diesel genset and further modification to grid parallel operation is specific to the Whitby Hydro building in this pilot. This pilot will support further opportunities to use this technology in the Industrial, Commercial and MUSH sector customer classes. These opportunities are included in other programs within this plan.

**Details:**

This is a pilot program to modify the transfer switch associated with the Whitby Hydro Bi-Fuel genset with a new controller and switch which will convert the existing “open” transition transfer switch to “closed” transition and thereby facilitate parallel operation. Remote operation capability of the modified genset will be installed in the Whitby Hydro control room where operators will perform manual peak shaving triggered by the price differential between the HOEP price and the cost of Bi-fuel operation.

This program will pilot the controls to remotely trigger the genset to operate either:

1. Automatically when the cost of producing power from the genset is lower than the cost of grid power (HOEP).
2. When dispatched from the Whitby Hydro control room for utility peak sharing.

**Budget:**

Amount (\$)	2004	2005	2006	2007	Total
Capital Expense		42,000			42,000
Operating Expense		4,000	2,000	2,000	8,000
Totals		46,000	2,000	2,000	50,000

**Program Benefits:**

Some of the benefits of peak shaving to the utility are:

- Dispatchable peak shaving
- Maximum use of standby capacity through safe parallel operation with the utility grid
- Cost-effective solution consistent with least cost planning emphasis
- Improved system load factor
- Enhanced voltage stability and avoided line losses during heavy load conditions

Some of the benefits of peak shaving to the end user are:

- Electricity cost savings by utilizing idle standby generator
- Enhanced reliability as standby gensets are tested under real load conditions with “bumpless” power transfers and potential cost savings as separate maintenance testing is no longer required.

**Estimated Annual Energy Savings:**

kW	kWh
120	36,000

Note: Based on 300 hours of annual operation

### 3) Peak Shaving Generator for Municipal Office

#### **Description:**

The use of standby gensets to relieve pressure on the existing grid is a proven efficient and cost-effective means to utilize existing resources at a fraction of the cost of wholesale expansion.

#### **Customer Classes Affected:**

In this program, Bi-Fuel conversion of diesel genset and further modification to grid parallel operation will affect the MUSH customer class.

#### **Details:**

A Bi-Fuel standby diesel generator will be sited at the Town of Whitby Municipal Building and serve the dual role as a "peak shaver" for demand response and a back-up power supply for the Town of Whitby Emergency Command Centre in the event of a major emergency.

#### **Budget:**

Amount (\$)	2004	2005	2006	2007	Total
Capital Expense		105,000			105,000
Operating Expense		2,000	1,500	1,500	5,000
Totals		107,000	1,500	1,500	110,000

### **Program Benefits:**

Some of the benefits of peak shaving to the utility are:

- Dispatchable peak shaving
- Maximum use of standby capacity through safe parallel operation with the utility grid
- Cost-effective solution consistent with least cost planning emphasis
- Improved system load factor
- Enhanced voltage stability and avoided line losses during heavy load conditions

Some of the benefits of peak shaving to the end user are:

- Enhanced reliability as standby gensets are tested under real load conditions with “bumpless” power transfers and potential cost savings as separate maintenance testing is no longer required.

### **Estimated Annual Energy Savings:**

kW	kWh
300	90,000

Note: Based on 300 hours of annual operation

#### **4) Modification of Standby Diesel Generators to Bi-Fuel Operation**

##### **Description:**

Deregulation is prompting utilities to be more innovative in their service delivery efforts. While government is examining the issue of potential supply shortages and distribution congestion, proposed solutions are months – and in some cases – years away from implementation.

There is a looming supply shortage in Ontario and there are proposed policies in place to remove coal generation by 2007. In addition, the cost of renting temporary power for peak consumption periods is exorbitant and has become a significant drain on resources that could be better spent elsewhere. It is evident that it is critical for utilities and industry to find ways to bridge the ever-widening gap between supply and demand.

A solution that can effectively bridge this gap between current needs and future expansion is bi-fuel conversion of diesel generators. A technology that has long been used in Europe and the United States with considerable success, bi-fuel conversion is a proven efficient and cost-effective means to utilize existing resources, reduce emissions from diesel generators and relieve pressure on the existing grid at a fraction of the cost of wholesale expansion.

##### **Customer Classes Affected:**

Bi-Fuel conversion of diesel genset and further modification to grid parallel operation will affect Industrial, commercial and MUSH sector customer classes

##### **Details:**

Existing diesel engines can be retrofitted to run on a natural gas/diesel fuel mixture (up to 80% natural gas). This not only reduces emissions, operating and fuel costs, it also allows for extended run time for stored fuel (up to five times). In addition, generators can be deployed for use beyond emergency situations to provide reliable operation for peak shaving. Whitby Hydro is proposing an incentive program to modify existing standby diesel gensets to Bi-Fuel operation with a new controller and switch which will convert the existing “open” transition transfer switch to “closed” transition and thereby facilitate parallel operation. Remote operation capability of the modified genset will be installed in the Whitby Hydro control room where operators will perform peak shaving triggered by the price differential between the HOEP price and the cost of Bi-fuel operation. The incentive will be up to \$50/kW towards the purchase and installation of a Bi-Fuel system and up to \$50/kW toward the conversion of the paralleling controls.

**Budget:**

Amount (\$)	2004	2005	2006	2007	Total
Capital Expense					
Operating Expense		130,000	130,000	90,000	350,000
Totals		130,000	130,000	90,000	350,000

**Program Benefits:**

Some of the benefits of peak shaving to the utility are:

- Dispatchable peak shaving behind the customer meter
- Maximum use of standby capacity through safe parallel operation with the utility grid
- Cost-effective solution consistent with least cost planning emphasis
- Improved system load factor
- Enhanced voltage stability and avoided line losses during heavy load conditions

Some of the benefits of peak shaving to the end user are:

- Electricity cost savings by utilizing idle standby generators.
- Enhanced reliability as standby gensets are tested under real load conditions with “bumpless” power transfers and potential cost savings as separate maintenance testing is no longer required.

**Estimated Annual Energy Savings:**

kW	kWh
3,500	1,050,000

Note: Based on 300 hours of annual operation

## **5) Energy Efficiency Program – Durham Non-Profit Housing (Pilot)**

### **Description:**

Durham Non Profit Housing (DNPH) owns and manages over 1100 units in the Durham Region. Three of their largest high rise buildings are located within the Whitby Hydro Service area. These buildings were constructed in an era where capital costs were minimized, often at the expense of higher operating costs. DNPH has experienced higher electricity costs recently and this has placed pressure on their operating budgets as they have limited re-course to increase funding. DNPH has implemented a plan targeted at reducing energy costs by 20% by taking a comprehensive approach to energy management. One of the critical elements of this plan is to replace inefficient lighting and space heating systems. This pilot program will provide incentives to help reduce the capital costs associated with replacing these building systems.

### **Customer Classes Affected:**

This is a pilot program with 3 high rise multi-residential buildings. The program will result in energy efficiency savings through new lighting systems and improved space heating technology.

### **Details:**

This pilot program encompasses the following steps:

1. Development of detailed electricity consumption baselines – existing use
2. Completion of investment grade audits (NR Canada funding will be applied for)
3. Confirmation of measures to be implemented
4. Project design, tendering and implementation
5. Monitoring and verifying energy savings

DNPH will be working with Whitby Hydro and a professional energy services provider at each step.

**Budget:**

Amount (\$)	2004	2005	2006	2007	Total
Capital Expense					
Operating Expense		37,000	1,500	1,500	40,000
Totals		37,000	1,500	1,500	40,000

**Program Benefits:**

Some of the benefits of the pilot program to the utility are:

- Experience accessing hard to reach customers
- Demand reduction savings consistent with the Ontario peak
- Cost-effective solution consistent with least cost planning emphasis
- Experience with energy efficiency programs

Some of the benefits to DNPH are:

- Reduced operating costs
- Reduced maintenance costs by replacement of old infrastructure
- Improved tenant comfort and safety

**Estimated Annual Energy Savings:**

kW	kWh
200	575,000

## **6) Installation of Power Medix (Residential Power Factor Correction) into 300 Homes**

### **Description:**

Power factor correction has been historically proven as a method of freeing up system capacity and improving efficiencies at an industrial level. Little if any effort has been directed to the residential level regardless of the fact that motors and compressors are common within a typical residence. Whitby Hydro is currently carrying out a project to identify the ability to free up system and generation capacity by correcting power factor at the residential level.

Power Medix is a residential power factor product that simply wires into a residential service panel. The system frees up capacity without customers having to change their normal living habits. Along with freeing up capacity, the units improve power quality, reducing light flicker and light dimming when motors are engaged. The program has received a \$30,000 grant from the EDA Tomorrow Fund to go toward the pilot, in hopes of providing a solution to free up generation within the Province without impacting the daily habits of its residents.

Initial information gathered from the Power Medix, indicates that efficiencies of up to 15% can be achieved on a typical motor. If the introduction of capacitance on a residential level frees up 5% of system capacity, mass introduction of the residential capacitance will free up system capacity and reduce generation requirements.

The pilot project would involve monitoring transformer loading in subdivisions where Power Medix has been installed and comparing results to subdivisions where the equipment has not been installed. The pilot would include approximately 300 homes. Depending on the success of the pilot, more houses may be included to receive Power Medix units.

### **Customer Classes Affected:**

Power Medix will affect residential customers, but has potential to be adapted to small commercial customers.

### **Details:**

Theoretically, correcting power factor basically makes the system, which is generator, distributor and consumer, more efficient. Because kW's are what the load consumes and kVA is what it takes to push the kW's through the system, by improving the power factor, the more efficient the system becomes.

Take the case of a generator capable of producing 1000 kW into a load of 1000 kW. At unity, power factor (PF), 1000 kW = 1000 kVA. At 70% power factor, 1000 kW = 1429 kVA. The generator output would need to be increased by 429 kW to satisfy a 1000 kW load operating at 70% PF. In short, improving the power factor at the distribution system and at the load, equates to less losses and more efficient use of the energy produced. From the generators prospective, they are capable of serving more clients from a fixed output.

**Budget:**

Amount (\$)	2004	2005	2006	2007	Total
Capital Expense	10,000	20,000			30,000
Operating Expense		30,000	45,000	20,000	95,000
Totals	10,000	50,000	45,000	20,000	125,000

**Program Benefits:**

Some of the benefits of the Power Medix Program are:

- Reduces I<sup>2</sup>R losses on the system
- Improves power quality
- Achieves measurable efficiencies at the residential level
- Does not require changes to residential consumption patterns

Based on savings of 5% on a typical residential home a 50 kVA transformer at maximum capacity would reduce its kVA by 2.5 kVA.

**Estimated Annual Energy Savings:**

kVA	kWh
75	

## 7) Power Factor Correction - Industrial

### Description:

As outlined above, power factor correction frees up capacity on the system, reducing the requirement output of generators and improving efficiency.

Whitby Hydro has been providing power factor correction for industrial customers throughout the province for four years. Because industrial customers are billed on KVA and penalized for poor power factor, financial savings are realized by the customer for improving the efficiency of their plant. Power factor correction brings kW and kVA closer to unity, thus reducing system requirements.

### Customer Classes Affected:

Power factor correction will affect industrial customers.

### Details

Correcting power factor makes the system, which is generator, distributor and consumer, more efficient. Because kW's are what the load consumes and kVA is what it takes to push the kW's through the system, by improving the power factor, the more efficient the system becomes.

Within Whitby Hydro, industrial customers had an average power factor (PF) of 89.5% in 2003. Whitby Hydro would offer power factor correction to industrial customers to bring their average PF to 95%. Approximately 5400 kVAR would be required to achieve this at a cost of \$300,000. The program would offer a 40% incentive (up to \$125,000 for the total program) to industrial customers to install capacitance to bring their PF to 95%. The percentage of incentive dollars can be adjusted depending on the uptake of the program.

### Budget:

Amount (\$)	2004	2005	2006	2007	Total
Capital Expense					
Operating Expense		62,500	62,500		125,000
Totals		62,500	62,500		125,000

**Program Benefits:**

Some of the benefits of Power Factor correction are:

- Reduces I<sup>2</sup>R losses on the system
- Improves power quality
- Achieves measurable efficiencies
- Frees up system capacitance
- Ongoing yearly savings

**Estimated Annual Energy Savings:**

kVAR	kWh
10,000	n/a

## 8) Sub-Metering

### Description:

A large segment of multi-residential tenants are not metered for their energy use. Typically, their energy costs are blended within their rent which is shared among all the tenants. This leads to the abusive use of energy.

Sub-metering has been proven to provide 25% energy savings off total apartment load when installed. Once tenants become responsible for the costs associated with their energy use they become more conservative with how they use it.

### Customer Classes Affected:

Sub-metering will affect multi-residential and commercial customers.

### Details

There are currently 2901 registered apartment units within Whitby that are not metered. The program would offer subsidization to landlords for the installation of sub-metering systems. Whitby Hydro would pay 22% of the project cost for the installation of a sub-metering system. It is anticipated that total project cost would be \$250,000. Based on 2901 X \$400/meter \*.22

The percentage of incentive dollars can be adjusted depending on the response to the program.

### Budget:

Amount (\$)	2004	2005	2006	2007	Total
Capital Expense		10,000	10,000		20,000
Operating Expense		80,000	80,000	70,000	230,000
Totals		90,000	90,000	70,000	250,000

**Program Benefits:**

Some of the benefits of sub-metering are:

- Makes the customers responsible for energy use
- Achieves measurable efficiencies
- Ongoing yearly savings
- Reduces system demand
- Improves security of system and identifies abusive use of energy

Based on savings of 25% on a typical tenant apartment consuming 400 kWh a month. Yearly savings within Whitby would be 3.5 million kWh.

**Estimated Annual Energy Savings:**

kW	kWh
400	3,500,000

## 9) Education and Training

### Description:

To ensure proper implementation and assessment of the C&DM initiatives, a comprehensive education program will be required to inform, educate and assist customers with the proposed programs.

### Customer Classes Affected:

Education will cover all customer classes: residential, commercial and industrial, the level of which will be dependent on the specifics and intricacies of the program.

### Details:

Residential - Television commercials educating the public on how to use energy wisely have already begun. This education process will be reinforced by mail inserts, news ads and articles and radio spots. A continuous media blitz will bring the conservation message front and centre to the customers of Whitby Hydro. More specific training and information distribution will be required for customers involved in the Powermedix pilot. This would include informing customers of the program, surveys to establish benchmarks and follow-up interviews.

Commercial – The commercial program will focus around general energy efficiency tips and processes to reduce energy consumption. Education sessions around metering, load control and general energy efficiency practices will be held. Surveys will also be a part of this program.

Industrial – Education will be a key tool in promoting Whitby's DSM program to industrial clients. Through working seminars, customers will be educated on programs that will promote the incentive opportunities available through this initiative. It will also help identify saving opportunities and assist customers in assessing the bottom line impact of implementing certain initiatives.

### Budget:

Amount (\$)	2004	2005	2006	2007	Total
Capital Expense					
Operating Expense	10,000	25,000	25,000	15,000	75,000
Totals	10,000	25,000	25,000	15,000	75,000

**Program Benefits:**

Some of the benefits of the education and training program are:

- Brings the energy conservation message to the attention of the customer
- Allows the customers to see the products available to them through the initiative
- Provides a sense of civil duty

Projected savings 2,000,000 kwh/year based on 0.1% of system load

**Estimated Annual Energy Savings:**

kW	kWh
n/a	2,000,000

## 10) Distribution System Load Balancing

### Description:

This DSM program involves the balancing of load currents on a phase to phase relationship for each distribution substation and associated feeders in the Town of Whitby. On a typical four-wire distribution system it is not uncommon to incorporate single and two phase connected loads which effectively creates imbalances on the overall three phase symmetry of the feeder. Distribution System Load Balancing must not only balance loads at the buss, but must provide effective load balance along the entire feeder route to obtain the benefits listed below.

### Customer Classes Affected:

Feeder load balancing will benefit all customer classes connected to the utility distribution system.

### Details:

The analysis and procedure will consider all possible combinations of phase load changes at each three phase connection point, for either single or two phase taps. Consideration will be given to the order in which loads are considered along the entire feeder. When all of the selections have been completed on the particular feeder, the best combination of phase load connections will be utilized.

### Budget:

Amount (\$)	2004	2005	2006	2007	Total
Capital Expense		5,000	5,000		10,000
Operating Expense		20,000	10,000	10,000	40,000
Totals		25,000	15,000	10,000	50,000

**Program Benefits:**

A properly balanced distribution system will:

- Yield lower losses resulting in a lower kW demand
- Provide for increased load capacity for growth and emergency loading conditions
- Improve voltage supply quality by equalizing the voltage drops in each phase along the feeder
- Reduce the impact of feeder conductor reinforcement
- Provide an overall higher quality of supply

**Estimated Annual Energy Savings:**

kW	kWh
TBD	TBD

## 11) Smart Meter Proposal

### Description:

This C&DM program would involve the installation of Smart Meters. A pilot program with a modest investment would provide Whitby Hydro with an educational experience on the operation and implementation of Smart Metering for a broad range of customer classes. Senior management and metering personnel will learn to evaluate a Smart Metering System proposal which will in turn provide the information required to meet the Provincial Regulated Price Plan proposed for March 2005.

### Customer Classes Affected:

All customer classes are affected.

### Details:

The proposal would involve the installation of approximately 125 meter points. The program would in turn, provide the data collecting service to provide a comparison with the current billing data.

### Budget:

Amount (\$)	2004	2005	2006	2007	Total
Capital Expense		50,000	30,000		80,000
Operating Expense		12,500	7,500		20,000
Totals		62,500	37,500		100,000

### Program Benefits:

These meters encourage C&DM initiatives by allowing the monitoring of energy consumption.

### Estimated Annual Energy Savings:

kW	kWh
TBD	TBD

## **Administration**

1. **Conservation & Demand Management Team** – The C&DM Team will consist of core management staff from Whitby Hydro Energy Services Corporation. Additional internal and external resources will be utilized by the C&DM Team as required.
2. **Finance Department of Whitby Hydro Energy Services** – The C&DM Team will utilize the accounting and administration services of the Finance Department of Whitby Hydro to handle all administrative, bookkeeping, banking, accounting and income tax matters.
3. **Mazar & Associates** - M&A will assist the C&DM Team in general corporate and contract matters.
4. **Stroud, Meadwell, Mowat & Fennell** – SMMF will handle the C&DM Team's insurance needs. The business written by SMMF is primarily general liability, bonding and contractors' general liability.

## Budget Plan

Program	Customer Class	Budget
Research	ALL	\$ 25,000
BiFuel Parallel Modification + Dispatch (Pilot)	MUSH	\$ 50,000
BiFuel Generator for Emergency Centre	MUSH	\$110,000
BiFuel Incentive Program	Ind/Com/MUSH	\$350,000
Energy Efficiency Program (Pilot)	Residential	\$ 40,000
Power Medix (Pilot)	Residential	\$125,000
Power Factor Correction	Industrial	\$125,000
Submetering	Residential	\$250,000
Education/Training	ALL	\$ 75,000
Load Balance	ALL	\$ 50,000
Smart Meters	ALL	\$100,000
<b>TOTAL</b>		<b>\$1,300,000</b>

**Note:** Whitby Hydro will continue to evaluate all programs to ensure success of the overall plan. Funds may be reallocated between programs based on these evaluations and in response to customer demands.

## **IMPLEMENTATION**

Whitby Hydro Energy Services Corporation will provide the resources to perform the following:

- Scoping and Vetting of target customer list
- Opportunity audits of targeted customers
- Identification of Pilot and quick start projects
- Investment grade energy audits
- Financing structure
- Project design and implementation
- Monitoring and verification
- Processing and reporting for Rate Recovery

## **APPENDIX A – Complimentary Incentive Programs**

The following are existing incentive programs which may be used in conjunction with the C&DM programs identified in this report.

### **NRCan**

The Federal Government (NRCan Office of Energy Efficiency) for qualifying facilities, will provide up to \$250K or 25% of a project's cost via an incentive of \$7.50 per gigajoule energy saved. Other programs will cover up to 50% of a study cost up to \$25,000. These programs require project approval before proceeding and require the owner to enroll in the Energy Innovators Program and complete an Energy Management Action Plan for their facilities.

### **Enbridge**

Enbridge provides incentives through their DSM plan ranging from \$0.05 to \$0.10 per cubic meter saved depending on the number of separate measures implemented. The maximum incentive is limited to \$30,000 per building. Funding requires prior approval from Enbridge.

### **EDA**

The EDA Tomorrow Fund provides funding on a project by project basis.