Whitby Hydro Energy Services Corporation

J.E. Lavelle, P.Eng., *President/C.E.O.*
R. Abi-Rashed, CMA, *Vice President - Finance/Regulatory*

November 29, 2004

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

Dear Mr. Zych,

Re: Application for Final Order of Approval - Scugog Hydro Energy Corporation's Conservation and Demand Management Plan

Please accept our application for a final order of approval for the Scugog 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:

Susan Reffle
sreffle@whitbyhydro.on.ca
(905) 668-5878 ext. 262

Mr. Terry Adderley
President, Scugog Hydro Energy Corporation
tadderley@whitbyhydro.on.ca
(905) 668-5878 ext.232

Regards,

Susan Reffle
Regulatory Financial Manager
Whitby Hydro Energy Services Corporation

Encl.
cc: Terry Adderley
Leta McCulloch - EDA

100 Taunton Rd. E., PO Box 59
Whitby, ON L1N 5R8
Office: 905-668-5878
Toronto line: 905-427-9481
Fax: 905-668-6598

SCUGOG HYDRO ENERGY CORPORATION

CONSERVATION AND DEMAND MANAGEMENT PLAN

(2004-2007)

Prepared by: Whitby Hydro Energy Services Corporation

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Executive Summary

Overview

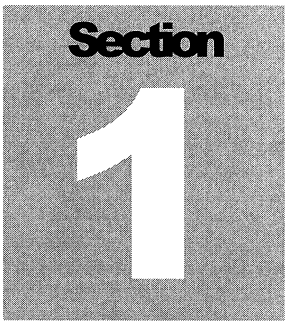
On 31 May 2004, the Minister of Energy wrote to electricity distributors pursuant to section 79.6 of the Ontario Energy Board Act, 1998 and expressed the expectation that the Energy Board will encourage utilities "to begin now to plan, deliver, and evaluate conservation and demand management activities".

Utilities can influence electric end use through demand response and management (DR/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, Demand Response (DR) programs are energy efficiency and conservation and efficiency programs used by electricity consumers to reduce their use of electricity during times of peak demand. Demand Side Management (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, Scugog Hydro Energy Corporation has targeted the following activities for Demand Response and Demand Side Management:

- Distributed generation facility (Bi-fuel)
- Education

In recognition of the dynamic nature of the industry, Scugog 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.

Section 2

Program Description

1) Education

Customer Classes Affected:

All customer classes

Details:

This program will focus on general energy efficiency tips.

Budget:

Program estimate.....$5,000

Program Benefits:

Some of the benefits of education are:

- Brings the energy conservation message to the attention of the customer
- Identifies products appropriate for energy conservation

2) Peak Shaving Generator for Municipal Office

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.

The use of standby gensets (generator sets) 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:

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

Details:

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

Budget:

Program estimate.....$58,000

Program Benefits:

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

- Dispatchable peak demand reduction
- 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
200	60,000

Note: Based on 300 hours of annual operation

Section 3

Administration

1. **Conservation & Demand Management Team** – The Conservation & Demand Management Team (C&DM Team) will consist of core management staff from Whitby Hydro Energy Services Corporation and the Corporate Officer from Scugog Hydro. Additional internal and external resources will be utilized by the C&DM Team as required.

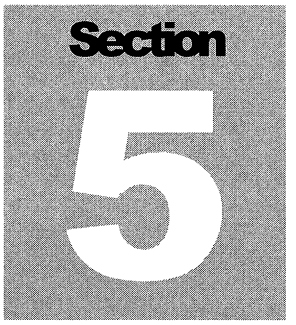
2. **Finance Department of Whitby Hydro Energy Services** – The C&DM Team will utilize the accounting and administration services of the Finance Department of Whitby Hydro to handle all administrative, bookkeeping, banking, accounting and income tax matters.

Section 4

Budget Plan

Program	Customer Class	Budget
Education	ALL	$ 5,000
Peak Shaving Generator	Municipal	$58,000
TOTAL		**$63,000**

Note: Scugog Hydro will monitor and evaluate the programs to ensure success of the overall plan.



IMPLEMENTATION

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

- 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.