EB 2004-0555

E.L.K. Energy Inc.

December 23, 2004

Ontario Energy Board
Attn: Board Secretary
PO Box 2319
2300 Yonge Street, 26th Floor
Toronto ON M4P 1E4

Dear Sir, 30 of 12

Re: Conservation and Demand Side Management Plan

Attached are six copies of our Conservation and Demand Side Management Plan.

Please do not hesitate to contact us if we can be of any further assistance.

Sincerely,

S Slater

Sandra Slater, CA
Director of Finance

Conservation and Demand Side Management Plan

December 2004

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1. Background

The Minister of Energy, Dwight Duncan ("Minister") has authorized distributors to apply for their installment of market adjusted revenue requirement. The Minister has also stated that approval of the recovery of this amount in rates is to be conditional on a financial commitment to invest an amount equal to one year's incremental returns in conservation and demand management activities. One year of incremental returns in for E.L.K. Energy Inc. ("E.L.K. Energy") is approximately $230,939.02. The Ontario Energy Board's has issued a Procedural Order to deal with matters relating to this initiative.

The Ontario Energy Board, in its information bulletin dated August 30, 2004, stated that it is prepared to give approval of planned conservation and demand management activities prior to these costs actually being incurred.

Distributors have three options they can follow in applying for approval:

a. Apply now for an interim order of the Board;
b. Apply now for a final order of the Board (subject to the ultimate review of the actual expenditures); or
c. Apply, in early 2005 as part of their application for 2005 rates, for a final order of the Board (subject only to the ultimate review of actual expenditures).

The choice between requesting an interim order (Option A) and requesting a final order now (Option B) is between a more rapid decision (resulting in an interim order under Option A) and a more certain decision (resulting in a final order under Option B).

E.L.K. Energy has decided to proceed with an Application now for a final order of the Ontario Energy Board. Hence, allowing a degree of certainty and finality to the Conservation and Demand Management initiatives.

E.L.K. Energy is confident that its Conservation and Demand Side Management Plan will support the *Conservation Culture* initiative in Ontario.

2. Objectives

On May 31, 2004, the Minister wrote to E.L.K. Energy with respect to conservation proposals that would be considered for the purpose of cost recovery. Without limiting the innovative proposal that E.L.K. Energy may submit, reasonable new expenditures on planning, delivery and evaluation of the specific measures should be supported by the Ontario Energy Board are:

- Energy efficiency:
- Behavioural and operational 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; and
- Distributed energy options behind a customer's meter such as tri-generation, co-generation, ground source heat pumps, solar, wind, and biomass systems.

Partnership opportunities may exist with governments, such as Natural Resources Canada, Canadian Federation of Municipalities and with local community-based conservation agencies and authorities.

3. Filing Requirements

The Ontario Energy Board filing requirements are as follows:

a. a description of the proposed programs identifying the affected customer classes and the specific details of each program;
b. the total program budget including the total amount and schedule of the annual expenses for the 2004-2007 time period; and
c. the anticipated program benefits, including quantifiable benefits where these can be identified (i.e. energy savings (kW or kWh). Where the program has anticipated qualitative benefits (such as enabling technologies or customer education), these expected qualitative benefits must be described.

4. Program Portfolio

Bulb Exchange Program

Compact fluorescent lamps have several advantages over the incandescent lamps including:

- Energy efficient alternative using as little as one-fifth of the power of an incandescent bulb.
- Lasts up to 13 times longer thus lowering maintenance costs.
- Now available in a variety of shapes and colors increasing their versatility.
- High initial cost can be recouped in a short time period.
- Environmentally friendly as it is believed that a single compact fluorescent bulb can save enough electricity (coal fired) to keep a ton of carbon dioxide out of the atmoshphere.

Our bulb exchange program will allow all customer to trade up to 2 incandescent bulbs for an equal number of compact fluorescent bulbs.

Cottam Conversion Program

Beginning in 2006 E.L.K. will convert their distribution system in our Cottam service area from 8,320/4,160 volts to 27,600/16,000 volts. Several efficiencies can be achieved through this conversion. The first being the elimination of the supply from the Distribution Station. Since the Transmission Station supplies at 27,600/16,000 volts the supply can be provided directly to the service area as opposed to being further transformed at the Distribution Station. With each transformation of voltage there are inefficiencies in losses. By eliminating the Distribution Station losses will be reduced.

In converting to the higher distribution voltage most of the transformers will have to be replaced. The new transformers will be constructed to the latest standards and more efficient than the transformers currently in service.

The higher distribution voltage affords for less voltage drop on the system thusly making the system more efficient.

E.L.K. intends to convert approximately 65% of the Cottam Service Area in 2006 with an initial impact of approximately 227,014 kwh's saved annually due to reduced line losses. The balance of the Cottom Service Area will be converted in 2007 with an additional 34,663 kwh's saved annually due to reduced line losses. Capital investment has a 25 year life cycle and theses efficiencies will be enjoyed for their entire life cycle.

Refrigerator Buy Out Program

Consumers often do not realize that old beer fridges are significant energy consumers. For example the typical 20 cubic foot refrigerator in use in 1992 used 94 kwh a month. An energy efficient model built in 2001 uses only 39 kwh a month. This represents a savings to the consumer of 55 kwh a month. Realizing that consumers may be reluctant to give up on a supply of cold beverages, E.L.K. will work with a selected group of appliance dealers within our service area and provide consumers with up to $150 rebate on the purchase of an ENERGY STAR refrigerator provided that an older unit is traded in on purchase. This will guarantee that older units are not just relocated and still consuming significant electricity and addresses short comings of other rebate programs based solely on purchase rather than trade in.

Christmas Light Buy Out Program

L.E.D. holiday lights have become increasingly available during recent years and offers consumers many advantages including:

- A high level of brightness with only a small fraction of energy – the 90% to 99% savings in electricity quickly adds up.
- Unbreakable & constructed of solid flameproof epoxy plastic.
- Lights operate much color than conventional lights making them safer to use either indoors or outdoors.
- Several shapes are available including: mini-ice, raspberry & strawberry with color options including: red, gold, blue, white or multi-colored.

Unfortunately, the higher initial purchase cost can discourage consumers from purchasing this more expense Christmas lighting option in the short term. It is hoped that once consumers trade incandescent lights for L.E.D. lights there advantages will be evident and future Christmas light purchases made by the consumer will be L.E.D. purchases.

The end consumer cost to operate various Christmas lights are as follows:

600 L.E.D. lights	$0.45
600 incandescent mini lights	$6.00
600 incandescent C7 lights	$31.30
Assumes a 30 day usage cost (6 hours per day) and a cost of electricity of 12 cents per kilowatt hour.	

The Christmas light buy out program will allow customer to bring in one strand of mini lights to be replaced with one strand of L.E.D. Consumers who bring in C7 strands will be allowed to trade up to 4 strands for L.E.D. replacements.

CustomerVu Implementation

CustomerVu is an internet bill presentment, bill payment and customer service solution which will provide customers with a significant amount of customer specific information including consumption. Registered users will be able to:

- Enter meter readings during the transitional phase to smart metering.
- Review billed usage information in a graph format.
- Internet bill presentment will eliminate the delay in getting the most current statement of account reading information to the customer.

Although the direct consumption impact of this initiative is not determinable, customers will have access to their consumption information for review and to obtain a better understanding of their consumption patterns.

Conservation Education Program

Conservation is an effort which every single electricity consumer can participate in. Conservation can require a consumer to make an investment in an Energy Star rated appliance to a simple change in habits which has no incremental cost such as turning off lights not in use. Educating consumers in conservation is key to achieving a positive conservation education program.

In educating our elementary aged children, they can actively participate in conservation by encouraging their parents today and practicing in the future when they become a primary consumer. Conservation programs will include suggestions such as:

- Installation of programmable thermostat with a built in timer.
- Keeping blinds, shades and drapes during the hottest part of the day in the summer and open south-facing blinds on sunny winter days.
- Using a solar blanket to keep swimming pool water warm overnight.
- Replacing traditional light bulbs with compact fluorescent light bulbs.
- Reducing phantom loads by unplugging appliances not in use.
- Purchasing of ENERGY STAR appliances.

Smart Metering Initiative

The introduction of smart metering will shift overall demand of electricity by encouraging consumers to use electricity at off-peak times and rewarding those consumers with lower commodity rates for consumption used in off-peak hours. It is E.L.K's intentions to begin the installation of smart meters in 2005 once the final guidelines for smart metering are released. E.L.K.'s plan will see all new connections and meter reverification completed with smart meters.

Year	Meters to be reverified	New installations	Smart meters installed
2005	778	200	978
2006	611	200	811
2007	519	200	719

This smart meter initiative will be in advance of the requirements for smart meter installations prior to 2010. In selecting the smart meter to be used E.L.K. will be reviewing systems that may allow for demand management through third party packages to allow for load shedding at peak or critical times or as an ongoing control offered to the customer. Some of the items being considered are:

- Pool pumps
- Electric water heaters
- Air conditioners

All of these units could be controlled remotely to limit their use during peak times or operated as rotational load shedding during critical times.

5. Budget Summary

	kWh Saved		Cost ($)
Bulb exchange program	8,150,549.00	$	63,000.00
Cottam Conversion	6,245,600.84	$	620,000.00
Refriderator buy out	660,000.00	$	15,000.00
Christmas Lights	46,937.50	$	2,000.00
CustomerVu	-	$	3,000.00
Conservation programs	-	$	20,000.00
Smart meters	-	$	508,000.00
Total	15,103,087.34	$	1,231,000.00

It is anticipated that an investment of $823,000 over the period 2005 through 2007 will result in a total savings of 15,279,257 kwh over the life of these assets. Programs for immediate implementation include the bulb exchange program, refrigerator buy out and implementation of CustomerVu. The Conservation programs will be coordinated with our school safety program while the Christmas light exchange will be timed with the 2005 Christmas season. The Cottam conversion timing will be coordinated with Hydro One and finally the smart meter implementation will coincide with the implementation of new applications currently being developed with our technology partners.

6. Contact Information

This document was prepared by E.L.K. Energy Inc. and for additional information about our Conservation and Demand Side Management Plan, please contact:

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