

## Background:

# Energy Professionals on conservation

Ontario is facing a serious shortage of electricity in the very near future. According to the IMO, there will be insufficient reserve capacity to meet anticipated electricity demand as early as 2005. Closure of the province's coal plants will leave Ontario's generation resources more than 3000MW short of peak demand. Even if the current RFP process is 100 per cent successful (which is unlikely) it will be too little, too late.

On the supply side of the equation, at a minimum, Ontario needs significant and immediate capital investment in generation, as well as a responsible transition away from how we currently use coal. However, we don't have the luxury of trading water-maintaining or replacing the electricity supply we have now. Given the predicted 1.5 to 2 per cent per year increase in electricity demand over the next two decades, and the environmental concerns surrounding new electricity generation, a great deal more emphasis must be paid to reducing the demand for electricity.

The benefits, direct and indirect, of conservation are many and significant. Conservation measures tend to improve the efficiency of the economy, mitigate damage to the environment, reduce our dependency on external energy supply, enhance our sovereignty, and stabilize electricity prices by lowering demand. The Society of Energy Professionals supports the creation of a conservation culture in Ontario and the implementation of the necessary industry structure and regulatory measures to ensure that Ontarians benefit from demand-side initiatives.

It has been amply demonstrated that the creation of "negawatts" (reductions in electricity use) is often cheaper than building new supply. Recently the Pembina Institute said it would cost \$39 billion to build enough new generation by 2020 to meet Ontario's supply shortage (estimated at 15,000MW) but only \$23 billion to fund enough conservation measures to meet the shortage by reducing demand—a 40 per cent reduction.

Before "liberalization," demand-side management programs were developed by vertically integrated monopoly utilities. With the 1990s trend toward deregulation and privatization, these utilities—such as Ontario Hydro—were unbundled so that no single entity could be seen as being responsible for the full suite of demand- and supply-side resources. It should come as no surprise, therefore, that by 1998, U.S. demand-side management spending had fallen from its peak of \$3 billion to \$1.6 billion.

In electricity markets, the interest in conservation tends to revolve around "demand-response" mechanisms that focus on price as a means of inducing less consumption or a shift in the time of consumption.

However, the utility of these demand-response measures is highly questionable. Economic demand response can provide short-term reductions for financial gains, but can also have negative consequences for production in our economy and can have disruptive and negative consequences for workers in Ontario. Given the nature of the demand for electricity, putting "smart meters" in residences will likely not generate the savings necessary to cover the cost of the meters—a cost that customers will be expected to pay.

Furthermore, most customers have little ability to reduce their consumption or shift the time of use. "Smart meters" and peak rates punish consumers who don't have the tools they need to reduce consumption significantly—things like mandated timers for water heaters and dishwashers, etc., and stricter regulations on how much electricity appliances use.

The unbundling and deregulation of the electricity industry create structural barriers to efforts at conservation. Also, the need to conserve will compete with the need for profits under privatization and deregulation, leading to vastly higher prices—private generators considering investing in Ontario will need higher prices to mitigate against successful conservation efforts.

**Therefore, the Society of Energy Professionals supports an industry structure and regulatory regime that encourage demand-side initiatives as a means of meeting the objective of reliable and safe electricity at stable and reasonable prices. The Society believes that conservation efforts will be most effective in the context of a publicly-owned electricity industry, in a policy context where demand-side resources are treated with the same weight as supply-side resources.**

Ontario Power Generation should play a vital role in the Province's effort to create a "conservation culture."