



YES Inc.
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**Demand Side Management & Demand Response
In the
Ontario Energy Sector
RP-2003-0144**

A Submission to the Ontario Energy Board

by

**Yousef Energy Services Inc.
of
Toronto, Ontario**

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Questions or comments regarding this document should be forwarded to:

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Introduction

Yousef Energy Services Inc. (YES Inc.) appreciates this opportunity to present its comments on the DSM/DR OEB Report. We support the Board and the Government in its efforts to strengthen DSM/DR initiatives in Ontario.

The Principal of YES Inc. has 30 years experience in the energy sector in Ontario mainly in the electricity segment of the business. YES Inc. over the last 9 years acted as an advisor to American and Canadian companies on Ontario electricity market, the progress towards a deregulated market.

In this submission, we will attempt to accomplish two objectives. First we will briefly comment on the content and scope of the report and its alignment with the recently published report by ECSTF that has been accepted by the Minister of Energy. Second, we will recommend policy and regulatory initiatives that would significantly help balance the electricity supply and demand in Ontario.

Comments and Recommendations.

YES Inc. strongly supports the OEB and the Ministry of Energy in their initiatives to promote DSM and Energy Conservation in the Province of Ontario.

Scope of the Report

Broadening the scope of the Minister's directive to include the Gas Sector in the OEB report can confuse and dilute the initiatives in the Electricity Sector. The reasons are:

- Electricity industry is lagging behind the gas industry and its DSM initiatives, and hence needs more attention and focus
- Electricity is deemed "essential" and must be provided to Ontarians, however the same does not apply to gas. This provides a hierarchy of needs and hence actions
- Electricity cannot be easily or economically stored, however gas can, providing gas with more flexibility on the DSM side
- Some electrical DSM initiatives might work very well for the electricity industry, but not so well for the Gas sector and visa versa.

- Gas Distribution companies are different from Electrical Distribution companies. Each should be given meaningful targets and measurements in their own sectors and judged on their performance in their own sector.

RECOMMENDATION.

DSM and Conservation initiatives in the Electricity sector should be dealt with separately from Gas DSM initiatives but with a close eye on the experience in the Gas sector.

Transmission and Distribution Systems Congestion

Congestion of the transmission and distribution systems is a concern in Ontario and should be considered when discussing DSM and Electricity Conservation initiatives.

RECOMMENDATION.

Solving transmission and distribution systems congestion should be added as an objective of any DSM or Electricity Conservation initiatives.

DSM and Energy Conservation.

DSM and Energy Conservation are being used in this report interchangeably. Some DSM initiatives may not reduce energy consumption over a specified period of time, but it will smooth-over the peaks and valleys of a system demand profile. As the report rightly points out Demand is measured in KW but energy is measured in KWH. There is a relationship between the two, but they need different policy initiatives for effective implementation.

For example Distributed Generation is extremely effective in reducing line losses and congestion in Transmission and Distribution systems. However it will have less of an impact on electricity conservation (with the exception of eliminating line losses – a range of 6% to 8% for both distribution and transmission). DG benefits should be acknowledged and encouraged considering that DG helps in managing demand side, reduces waste of energy (line losses) and provides a badly needed new environmentally friendly electrical generation.

RECOMMENDATION.

1. *Congestion of Transmission and Distribution Systems must be given serious consideration in discussing and evaluating DSM and Electricity Conservation initiatives.*
2. *On site self-generation projects should be encouraged and promoted not penalized and burdened with additional tariffs and levies. This recommendation is in agreement with the ESCTF recommendations on treatment of DG in Ontario. For more DG benefits See appendix A.*

Creating a new central agency for DSM and Electricity Conservation

Creating yet another Central Agency in a market that already has four central agencies (MOE, OEB, IMO, and OEFC) is considered inappropriate approach to dealing with DSM and Electricity Conservation initiatives.

A fifth agency will constitute an unnecessary bureaucracy performing functions that can overlaps with functions already being provided by existing agencies. Expanding the mandate of existing agencies is considered better and timelier approach.

RECOMMENDATION.

The OEB/Utility model (or a similar model using existing agencies) is more suitable approach to managing DSM and Electricity Conservation initiatives in Ontario.

Summary.

Ontarians should be encouraged to manage electricity demand and conservation. However it is important to promote all forms of DSM and Conservation initiatives and send the right signal to the market participants to encourage not only DSM/Conservation initiatives but also promote private sector investment in the supply side. Promoting DSM/Conservation on the account of new supply is not what Ontario needs.

Appendix A

Benefits of Distributed Generation

DG is a viable option for Ontario due to the following key factors:

- It has low capital costs
- It has short lead-time to in service (weeks to months—not years to a decade).
- Reliable and efficient technology that is proven and available now
- Its ability to operate independent of Transmission and Distribution networks. This is key to T & D network congestion issues.
- Due to its close proximity to the load, it can assist in delaying major expenditure on strengthening or expanding Transmission and Distribution systems.
- It has high system efficiency (in the range of 85% to 90% total cycle efficiency), based on the use of Combined Heat & Power (CHP)
- DG independence from transmission and distribution (T&D) networks eliminates normally experienced line losses (5-8% on avg).
- The dispersed nature of Distributed Generation provides better security of supply in comparison to large centralized power plants.
- It is environmentally friendly:
 - DG operates under very strict emission standards using natural gas for fuel.
 - DG is independent of Transmission lines and its controversial EMF issues