

Ontario Energy Board
26th Floor
2300 Yonge Street
Toronto, Ontario
M4P 1E4
ATT: Mr. Peter O'Dell, Assistant Board Secretary

February 18, 2004

Dear Mr. O'Dell,

**Re: RP-2004-0020 - Consultation to
Review of Further Efficiencies in the Electricity Distribution Sector
ECMI Submission**

As instructed by the Ontario Energy Board (OEB) in its letter of February 11th, 2004, ECMI hereby submits its written submission with respect to the Review of Further Efficiencies in the Electricity Distribution Sector.

Respectfully submitted for the Board's consideration.

Roger White
President
Energy Cost Management Inc.

This submission is divided into the following sections: -

Introduction

6.1 Further Consolidation

Mergers Acquisitions, Amalgamations and Divestitures (MAAD)

Additional Consolidation Issues

Efficiency

Operational Efficiency and Controllable Structural Efficiency

Uncontrollable Structural Efficiency

Consumer Benefits

6.2 Incentives

6.3 Load Serving Entities

6.4 Distribution System Planning

6.5 Technological Innovation

6.6 Additional ECMI comments

Introduction

ECMI serves over 10% of the province's electricity distributors. Many of ECMI's client utilities are among the smaller medium sized utilities in the province.

Responses are given to each of the items listed in the section 6 of the OEB's Discussion Paper, dated February 10th 2004. These are followed by additional comments which ECMI believes are an integral part of any review of further efficiencies in the electricity distribution sector.

In its letter of January 21st the OEB stated that "one of the primary issues that will be addressed in the consultation (paper) is whether there are economic, service and other benefits to be gained from further consolidation of the electricity distribution sector." It added that "consolidation may also provide additional benefits by allowing distributors to be more involved in commodity procurement and load aggregation, including acting as load serving entities, and in demand side management and system planning."

Also identified in the consultation (paper) are "mechanisms available to the Board to drive further efficiencies in the electricity distribution sector, including PBR incentive schemes in addition to " the benefits that may result from the greater use of shared services among distributors." The OEB's letter also asked stakeholders to highlight other related issue which "they may consider necessary or desirable for further enhancing the efficiency and performance of the electricity distribution sector. " This submission paper will attempt to outline the status quo and to respond to these issues.

The following timeline demonstrates some of the pressures placed on the distributors over a rapidly evolving marketplace.

- 1996 Macdonald report
- 1997 White Paper "Direction for Change: Charting a Course for Competitive Electricity and Jobs in Ontario".
- 1998 Energy Competition Act
- 2000 Deadline for distributors to "corporatize" (November)
- 2001 Unbundling of rates
- 2002 Market Opening (May)
- 2002 Bill 210 (November)
- 2003 Blackout (August)
- 2004 Recovery of Regulated Assets initiated

In addition the OEB has issued four codes, and initiated a review of at least one of them already.

6.1 Further Consolidation

The Discussion Paper implies some disappointment at the lack of consolidation subsequent to the March 2003 2nd Transfer Tax holiday. ECMI comments are meant as a caution to the OEB to encourage it to ensure that the Mergers Acquisitions Amalgamations and Divestitures (MAAD) process produces real customer benefits. The notion that barriers should be removed as a stand alone initiative, independent of real benefit to customers, is inappropriate.

Further expansion of Hydro One may not be the answer. Few would argue that Hydro One lacks scale. If larger were the answer, it is quite possible that the OEB would not be the regulator and we would not have a restructured industry under Bill 35 in 1998. As the Discussion Paper states on Page 2, *“The Ontario government’s decision to restructure the electricity market was due to a number of factors. The most significant factor was the financial and operational performance of Ontario Hydro over the 10 year period to the mid-1990s. Ontario Hydro’s financial performance was in large part related to generation and the related debt that could not be serviced by Ontario Hydro without impacting electricity rates.”*

With respect to Hydro One Distribution, one of Ontario Hydro’s successor companies, there is little evidence available to confirm that its increase in size in recent years from the acquisition of 88 distributors has resulted in improved customer service.

Of the three other Canadian examples, only Alberta is not a province wide utility. What this table and comments demonstrate is that selective choice of examples can be used to support any position or none.

A look at our American neighbours will demonstrate the continued existence of many small and medium sized distributors. In fact, consideration of some of the major problems in the U.S. would include the financial difficulties experienced by Pacific Gas and Electric and the recent failure to perform by First Energy. Neither of these utilities suffers from being too small. In fact these situations may demonstrate that Pacific Gas and Electric may suffer from over-regulation and too fast a conversion to a competitive commodity market (including the transfer of commodity risk to this distributor) while First Energy may suffer from under regulation.

Mergers Acquisitions Amalgamations and Divestitures (MAAD)

The Filing Requirements for Acquisitions, Divestitures and Amalgamations (Section 86 under the Ontario Energy Board Act 1998) require all applicants to address the OEB’s objectives: -

- Facilitate Competition
- Non-Discriminatory Access to Transmission and Distribution Systems
- Protect Interests of Consumers
- Promote Economic Efficiency
- Financial Viability
- Facilitate Energy Efficiency and Use of Environmentally Benign Energy Sources
- Other

The Mergers Acquisitions Amalgamations and Divestitures (MAAD) process is fundamentally flawed because it does not start by measuring customer satisfaction from existing service or require and measure customer satisfaction resulting from the merger. It also does not exact a commitment to any measurable improvement by the acquiring party when agreeing to a merger. If consolidation is going to occur, then the requirements of MAAD must be revisited. This review would include some clear and meaningful definitions of what best practices mean.

The restructuring of the electricity industry in Ontario under the Energy Competition Act 1998 had a cornerstone of voluntary action by local municipalities. This local decision making recognised that local control and operation of the distribution sector produces some real benefits to communities and particularly for those geographically isolated communities retains an existing geographic rationalisation. The fact that Hydro One did not divest itself of any of its customers during the initial stage of restructuring appears to indicate that the government's utility was not interested in geographic rationalisation, only acquisitions. There may be operating efficiencies available from LDC's acquisition of certain Hydro One Networks Inc assets.

The OEB's Mergers Acquisitions Amalgamations and Divestitures (MAAD) process appears to have imposed insufficient rigour during the first MAAD activity under the post-corporatization regime. There was no requirement as part of a MAAD application to demonstrate real customer benefit from a price, service and reliability perspective. Even if the service and reliability measures put in place by the OEB were used they may not be based on true values to customers. In fact no customer surveys regarding customers wants, needs, expectations have been conducted. This leaves the Discussion Paper unable to identify in tangible or measurable way whether there are economic, service or other benefits to be gained from further consolidation of the electricity distribution sector.

The Discussion Paper clearly struggles with the situation in Ontario where service is often better supplied, where the operational control is local and the customers can deal directly with decision makers. The Discussion Paper's perception that local control is non-economic may stem from the fact that we neither know what the customers want, expect or need and none of the reliability measures capture the impact on businesses or communities or customers and in fact don't make an attempt to determine the volume of the commodity that was not delivered.

During the first Performance Based Regulation hearing, ECMI suggested to the OEB that service would change to customers in material ways, particularly in those areas not measured by the OEB's performance indices. Even in areas where the OEB's performance indices are in place, MAAD approvals have not required geographic tracking of such items out outage duration on an individual acquired utility perspective. This would show over time whether duration or frequency of outages deteriorated or improved subsequent to the acquisition.

For many of the remaining isolated utilities, service resources are within the community and an acquisition or merger would result in service resources having to travel significant distances to deal with customer outages. This added lag time could result in reduced standards of service for the community served. Local decision making and diversity in distributors itself promotes opportunity for innovative uses of existing technology or the development of new technologies to enhance the quality of service to customers.

Additional consolidation issues

If restructuring is imposed in pursuit of economies, which may be more myth and magic than reality, the resulting changes are invariably **not reversible**. This restructuring may be promoted by those who will be gone before the customers experience the results of restructuring - benefits or otherwise.

The thrust of the discussion paper is that bigger is automatically better. There are numerous examples, both within the electricity industry and elsewhere to demonstrate this is not the case. For instance, recent reports show that operating costs at Air Canada are 18cents per passenger mile, or 40% higher than the much smaller Westjet at 10 cents per passenger mile. Further, anyone following the recent problems of Stelco, one of the country’s largest steel makers, will know that large size is not of itself any guarantee that a business will be successful.

Section 3.3 of the discussion paper asserts, among other things, that efficiency gains may be obtained from “a wide range of strategies including cost reduction, revenue enhancement and restructuring.” Such an assertion is flawed because, by grouping these three items together it presupposes that cost reduction and revenue enhancement will be achieved by restructuring. The discussion paper includes a reference to utilities having 10,000 or less customers. No rationale or discussion is offered on how this number is derived. There may be economies in serving bigger customers but that does not make bigger utilities better than smaller utilities.

If those utilities that serve customers well are merged with large rural areas where service is less good, this may create the false impression that economies have been achieved but this may be at the expense of real service. If the change is not an improvement to the present quality of service to customers, then consolidation may achieve a lower price but result in a material loss in the quality of real service that is not measured by the current inadequate measurement systems.

ECMI’s second smallest client (under 3,000 customers) has the lowest residential cents/kW.h, the lowest General Service under 50kW cents/kW.h, the second lowest General Service over 50kW cents/kW.h, the lowest all General Service over 50kW cents per /kW.h and the lowest overall cents/kW.h delivered when considering distribution revenue. Some might suggest that this utility will have a huge 3rd tranche rate increase pending. Unlike other distributors, this utility will not have a rate increase because the 3rd tranche amount is zero.

**Average Total Distribution Charges
Including Service Charges and Variable Charges
(total average customer cost)**

RES \$/kWh	Gen <50kW \$/kWh	Gen >50kW \$/kWh	ALL Gen >50kW \$/kWh	ALL \$/kWh
\$ 0.0122	\$ 0.0081	\$ 0.0059	\$ 0.0026	\$ 0.0056

If this utility were to merge with the only nearby utility (Hydro One) its rates would not decline and its nearest service centre would be about an hour away as compared to current resources which are within the community under that “Local Control” Demon.

Efficiency

ECMI will discuss efficiency under two headings: -.

- Operational efficiency and controllable structural efficiency
- Uncontrollable structural efficiency

Operational efficiency and controllable structural efficiency

The discussion paper lists areas where distributors may realise operational efficiencies. Small and medium sized utilities are already using external resources to meet the demands of the evolving marketplace. Many such efficiencies are already in place in small and medium sized utilities and include: -

- Sharing of billing systems with other LDC's
- Purchasing design and construction services
- Purchasing information technology support
- Purchasing meter reading services
- Sharing meter reading costs with other suppliers
- Purchase regulatory support
- Shared software development and acquisition costs

The Discussion Paper rightly expressed concern that one of the easiest ways to reduce cost is to reduce service. As identified in this submission, service reductions would often occur in areas that would be of value to customers but are not measured by existing regulatory indices or standards.

ECMI concurs that developing a variety of price/service offerings is a complex matter and without clearly defined packages of terms and conditions, the regulatory issue of discrimination between customers may become unmanageable.

A number of ECMI's clients have already implemented operating efficiencies by the development of Service Agreements for the supply of specific functions. The current lack of cost of service studies including cost allocation indicates that the financial underpinning of the existing classes is suspect. The existing indices do not fully recognize this interplay between a distributor's cost and at best considers only a few aspects of service quality. Customer value should also be measured. (See section above.)

Uncontrollable Structural Efficiency

Section 3 of the Discussion Paper does not adequately discuss the many characteristics of a particular LDC's operation over which it has little control. The following discussion will focus on differentiating characteristics of LDC's in the Ontario market.

1. Operating voltage configurations
2. Utility / customer responsibilities
3. Overhead vs. underground supply
4. Nature of the environment factors
5. Historical influences
6. Geographical Area
7. Other disparity factors
8. Specific regulatory issues

1. Operating voltages configurations

Possible voltages of an LDC's 3 wire Low Voltage (LV) system*	Possible voltages of an LDC's 4 wire distribution system -
44kV	27.6/16kV
27.6kV (3 wire)	25kV/12kV
	13/8.8kV
	12/7kV
	4160V/2400V

* Note that an LDC may not operate an LV system. An LDC's overall system can contain any combination of these distribution and/ or LV configurations. The capital cost to install systems of different voltages can be materially different. Once in service, the operating costs of systems at different voltages can be materially different. An LDC 's exposure to being responsible for reliability performance varies depending on these voltage considerations. An LDC with duplicate systems (both LV and distribution) will generally have a higher exposure.

2. Utility / Customer transformation responsibilities

Utility - Where does the utility responsibility start and end?

LDC's vary widely in their transformation ownership and operating responsibilities. Those responsibilities are dependent on the points in the system at which the LDC is responsible for the control, management and ownership of the system. The responsibilities end when the LDC's customer assumes control, management and ownership of its system. Transformation responsibilities can occur in the following 3 areas.

1. An LDC can own and operate it own Transformer Station (TS) supplied at 230kV or 115kV.
2. An LDC can own and operate its own Distribution Stations (DS's) supplied at 44kV or 27.6kV.
3. An LDC can own and operate its own distribution transformers.

Where does the customer responsibility start?

An LDC may require a customer to own transformers above a certain size where those transformers are dedicated to individual customers. For example, an LDC may not supply distribution transformation that supplies an individual customer larger than 350kVA. In this case the individual customer assumes the responsibility of the performance of the transformer and failure of a customer owned transformer would not affect the utility's performance indices.

3. Overhead vs. underground supply

As previously discussed, whether the system is overhead or underground will have material influence on the likelihood of an outage (underground are generally less frequent). The reasonable restoration time is similarly influenced by overhead/ underground considerations, where an underground generally requires a longer restoration time. Construction standards are often controlled by a third party and so outside of the control of the utility. For instance, a municipality may specify that supply to a residential subdivision is all underground.

4. Nature of the environment factors

- Geographic Weather patterns, such as lightning storms (e.g. Muskoka lightning corridor), freezing rain and tornadoes etc.
- Vegetation, such as encroachment by trees on power lines.
- Distribution system corridors (along roadways or through the bush).
- Soil conditions (rock versus sand)

Impact of Nature of the environment

The nature of the environment can impact indices in 2 ways: -

1. Exposure variance increases or reduces number of incidents.
2. Impacts on restoration time. (For example, the time taken to restore a system in a rocky area may require pole cribbing, a process which takes longer than setting a pole in a soil surface).

5. Historical influences

Historical influences can include the evolution of different distribution voltages within a utility. These can include political decisions where isolated or adjacent political communities or distribution systems have been merged to be served by one distributor. Age of system may be a primary differentiation between systems. For example, some systems may be all or largely underground.

6. Geographical Area

Uniform or non-uniform distribution of customers on the system. For example, pockets of high system density and long expanses of lower customer density is not a uniform system. To the extent that a system is not homogeneous or as homogeneous as other distributors may materially influence the comparability of distributors.

7. Other disparity Factors

Utilities will have inherent disparity factors such as: -

- Customers / km (Density. It may be appropriate to consider indices performance on a customer class basis if density is the differentiating criteria between the classes)
- Customers per sq. km. (Served area, where served area is the qualifying area for lays along lines in square km as defined in the Distribution System Code).

8. Specific regulatory issues

As demonstrated in this section, it is reasonable to expect different performance levels to be different for different utilities, even though each of the utilities may be applying best utility practices.

In order to compare utilities, in pursuit of equity it is necessary to establish cohorts which can be compared. For the purpose of this discussion, a cohort is defined as a group of similar distributors which can be compared for regulatory purposes. The concept of a cohort presupposes that utilities can equitably be compared with respect to service and reliability. Equal treatment of unequals is not equity.

Consumer Benefits

The OEB Discussion Paper rightly recognizes that customer benefit and service has several attributers including “safety, reliability, convenience, customer service,

environmental impacts, and so on". The fact that the OEB does not currently measure or attempt to measure most of these attributes of service is a problem in the previously mentioned MAAD section and the section on the notion of disciplining under-performing distributors and managers. This lack of effective measurement illustrates the OEB's dichotomy in dealing with under performing distributors and managers. It should be noted that it has been the large utilities that have stated that efforts to measure record and report the failure of distributors to deliver energy would be "too much work." However, the dominant solution in the Discussion Paper is that larger distributors will provide the majority of the economies in the delivery system.

Regulatory rules that create a bias against technological innovation and risk-taking, such as the asymmetrical treatment of innovations with uncertain benefits should be avoided. The notion here is that if a distributor takes a cost savings initiative that is unsuccessful, it must accept the risk. However, the results of any successful cost saving initiatives must be transferred to its customers as part of any rebasing process. If the OEB is looking for guidance on this item, then perhaps Bill 210 which imposed the customer as the dominant consideration for regulatory decisions should provide guidance. What seems to have happened is that the only customer the statute was referring to is the residential customer. It is important to realize is that there are more customers than just residential customers.

The Discussion Paper suggests that poor access to information on methods of enhancing distributor efficiency is an issue. What are not recognized in the Discussion Paper are the opportunities created by new technologies. The development of new technologies and communication systems allows even the most remote and small scale distributors to acquire the latest industry knowledge.

The Discussion Paper also states, "*Impediments to enhancing efficiency are not necessarily undesirable in all instances.* In ECMI's view, efficiency is not the only objective of regulatory policy. There needs to be clear OEB policy established appropriate impediments to efficiency. These impediments to efficiency are in fact the OEB's way of saying that the underpinning reasons are a priority for the OEB. A PBR regime must minimise surprises for both the customer and the distributor to be optimally effective.

Removing barriers to consolidation as suggested in the Discussion Paper may materially degrade the service delivered to customers. As stated earlier, the MAAD process should be revisited and enhanced with a true customer focus, as required by Bill 210.

If economies of scale were the answer, then Bill 35 (The Electricity Act 1998) may not have been required. The point here is to be smart enough to ignore the often touted myth that economies of scale are automatic and should be accepted as empirical facts. Bigger utilities often want all of the required resources in house and we have all heard stories of successful empire builders.

6.2 Incentives

Performance based regulation has to balance the interests of the shareholder and the customers. What is singularly lacking in the performance measures in place and even those proposed, is that they are not comprehensive in nature. They may encourage distributors to focus on narrow aspects of their operation to the overall long run and possibly short run detriment of their customers. For instance, a distributor may add customer service people to improve response at the expense of resources for line maintenance.

The first generation of Performance Based Regulation imposed automatic Input Price Index and Productivity Factor adjustments. For distributors with the lowest 10% in rates, this “rough justice” can be particularly punishing and lack any true equity. To require a utility that may already have some of the lowest rates in the province to further reduce its rates is probably unreasonable. Benchmarking based on comparability of distributors including price and “true” service characteristics and uncontrollable structural characteristics may provide a more equitable regulatory process than the 1st generation of Performance Based Regulation. Failure to take the time to establish credible mechanisms to compare or cluster distributors will leave customers not well served.

6.3 Load Serving Entities

The OEB’s letter of January 21st 2004 presupposes that consumers will benefit from a distributor’s involvement in commodity procurement. The notion that other entities such as distribution companies would emerge to take on the responsibility for default supply is inconsistent with the 1996 Macdonald committee report and the 1997 White Paper entitled “Direction for Change” which included recommendations that were specific to the electricity distribution sector. These included, among other things “clear separation of the competitive business from the monopoly business.”

The OEB has recognised in its decision to require weighted average spot market pass through that this mechanism provides the best price to customers. Involving distributors in commodity procurement would represent a significant change in philosophy. The OEB in its even handed regulation to date has recognise both in its return decisions and its cost of money decisions that the distribution and transmission business require long term decisions and investment. The regulator has recognised that there is no instant solution to the electricity market. To force distributors into dealing in the commodity would be ill conceived and asynchronous with the OEB’s regulation of the gas industry

There is nothing contrary to the existing rules or distributor regulatory practice which precludes distributors from forming a partnership under a subsidiary for the purpose of dealing in the commodity. The notion that commodity procurement may only be achieved through consolidation is inaccurate.

We are here again because the supply market is broken. The problem in the industry responsible for the production and delivery of electricity in Ontario has been and continues to be dominated by the production side. Failure to address the problem by restructuring the part of the system that works or by forcing the transmission and distribution side to dabble in a non-competitive production market will only further erode the confidence of the customers in the market place. The focus should be to fix what’s

broken. What is required is additional long term competitive generation in the marketplace.

A central agency responsible for the procurement of energy already exists. It is called the IeMO. To suggest that the IeMO should be permitted to avoid its statutory obligation because it might contain some risk and that that risk should be transferred to distribution entities rather than spread over all of the customers of Ontario through the IeMO is counter-productive. A possible solution is to have the IeMO enter into long term fixed contracts at a premium price sufficient to attract new generation into the Ontario market. This new sustainable generation would be subject to rigorous performance requirements and be called up first. This would cause the existing generation to compete for the marginal marketplace.

Continuing to fix the distribution market by weighing it down with high risk commodity pressures may well probably result in it being as flawed as the existing commodity market. This appears to be similar to the downloading by the Province of such things as responsibility for certain roads, where the local municipalities were assigned responsibility for these roads without a parallel transfer of sufficient

- Expertise and
- Financial resources.

The vast energy and pressure being applied to the delivery system which is not broken will inevitably crack it. Even diamonds can be smashed under this kind of pressure.

Distributors could be encouraged, perhaps by putting one year's value of the 3rd tranche investment into a new sustainable generation company or partnerships, which could bring new sustainable, possibly green energy into a market place that has indicated a willingness to pay a premium for green energy. In the alternative, utilities could be encouraged to use similar vehicles (subsidiaries or partnerships) to invest in Demand Side Management. Either of these alternatives could assist in the reduction of the shortage of supply.

6.4 Distribution System Planning

Distributors are already involved in system planning. The OEB's letter of January 21st states, among other things, that "Consolidation may also provide additional benefits by allowing distributors to be more involved in commodity procurement and load aggregation, including acting as load serving entities, and in demand side management and system planning." It should be recognised that all of the province's distributors already participate in system planning because they advise their supplier of their forecast needs.

6.5 Technological Innovation

As noted in ECMI comments on Further Consolidation, what are not recognized in the Discussion Paper are the opportunities created by new technologies. The development of new technologies and communication systems allows even the most remote and small scale distributors to acquire the latest industry knowledge.

6.6 Additional ECMI Comments

The OEB has made a good start with respect to the regulation of distributors. However, insufficient time has elapsed to allow a full evaluation of whether consolidation to date has produced any benefits.