DISTRIBUTION SYSTEM CODE TASK FORCE

CHAPTER 7

SUMMARIES OF RECOMMENDATIONS: RESPONSIBILITIES TO OTHER DISTRIBUTORS

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7.1 SHARED LOW VOLTAGE TRANSMISSION LINES (LV LINES)

[FINALIZED: DECEMBER 1, 1999]

Issue Statement

Distributors may share low voltage transmission lines to convey electricity to load. The issues are:

> Who should own existing and future low voltage (LV) lines and how should they be administered?
>
> What options are available to a distributor for wheeling power through another distributor's territory?
>
> What obligation does one distributor have with regard to connecting and supplying another distributor?

The issue of a wheeling rate structure is an important aspect of this discussion, but will be dealt with elsewhere, most likely in the transmission rate hearings.

Options

1. The Transmission Company could be assigned responsibility for providing all facilities (including distribution facilities < 50 kV) required to deliver wholesale power to a distributor's boundary. This would eliminate any obligation that a distributor might have regarding supply to another distributor, but would not preclude the distributor from owning and operating such facilities in its supply territory or providing this service on a wheeling contract basis to the Transmission Company.

2. Distributors requiring energy supply should be responsible for connecting their system to the transmission system, and be given the opportunity to construct, own and operate all facilities required to connect its system. This could include facilities > 50 kV and/or distribution facilities within another distributor's territory.

3. Distributors could be obligated to make offers to provide and operate facilities within their supply territories that are required to deliver wholesale power to the boundary of another distribution system. This would be similar to the obligation that distributors have to offer to connect large customers within their service areas.

Background Information

The historic development of the wholesale electrical infrastructure in the province has resulted in many situations in which transformer stations (TSs) and LV lines have been planned and build to serve the needs of more than one distributor. This is an efficient sharing of facilities. In these circumstances, the TS is located within the service area of one distributor, but the TS also supplies neighbouring distributors over a special category of distribution line called LV lines.

LV lines are lines that are owned by one distributor but supply power to one or more other distributors on either a shared or dedicated basis. Under the old integrated supply system, the majority of these LV lines were managed by Ontario Hydro for the benefit of all. Some were owned and operated by Municipal Electric Utilities (MEUs) through wheeling agreements with Ontario Hydro. Going forward, it is imperative that established supply arrangements be honored and retained, and that suitable processes be developed to encourage efficient and effective sharing of supply facilities.

Implementation Issues

- Asset ownership and transfer;
- Commercial contract and operating agreement development; and
- Wheeling rate determination.

Summary of Discussion

The intent in developing a recommendation should be to encourage flexibility in economic decision-making while protecting system integrity. It is felt this can be achieved best by encouraging distributors to own as much of the distribution infrastructure in their own service areaes as possible. Accordingly, when necessary, a distributor should have the ability to request that a bordering distributor transport power from a TS in the bordering distributor's service area to the shared boundary. A distributor should be obligated to offer to connect and transport power to the requesting distributor’s boundary. The offer should be fair, reasonable, and consistent with the host distributor’s published Conditions of Service, unless mutually agreed otherwise. In addition, a distributors should have adequate control and ownership of facilities that impact supply to their customers and, in some circumstances, have ownership in other distributors’ service area.es. In these circumstances, appropriate operating and/or joint-use agreements should be established between the distributors.

When one distributor wheels power through its service area to serve the needs of another distributor, the rates charged to wheel power would be based on an accepted standardized methodology and be subject to approval by the OEB.

The group discussed whether wheeling distributors should be required to carry Transmission Licenses.. One of the concerns in this regard is the potential for "pancaking" of distribution rates through 2 or more jurisdictions and the social and economic impacts that this would have on the development of areas not connected directly to a TS. Since wheeling is a normal distribution function for distributors, the group felt that it would be inappropriate to require a licensed distributor also to have a Transmission Licence in order to provide a wheeling function at less than 50 kV. Also, under such a scenario, if a distributor did not have a Transmission Licence, it would not be obliged to wheel power through its service area to another distributor at wheeling rates, but rather at wires charge rates.

Recognizing that LV lines generally were planned and built to serve the needs of more than one distributor, the owner of these lines should be protected to some degree from potential stranding. Stranding might occur if one or more of the original distributors being supplied chooses an alternative supply arrangement in the future.

Recommendations

The recommendation is to use a combination of Options 2 and 3, based on the following principles:

1. In future, delivery of power to one distributor through another distributor's supply territory should be handled in accordance with the following principles:

    - A distributor should be encouraged to own and operate all distribution lines within its supply territory (including LV lines that supply other distributors).

    - Distributors should be obligated to make offers to wheel power through their supply territories for other distributors when requested. The offer must be fair and reasonable and be consistent with the supply distributor's published Conditions of Service, unless mutually agreed otherwise.

    - Distributors should be given the opportunity to own and operate distribution lines or joint-use circuits in another distributor's territory for the sole purpose of connecting to the transmission system and under the following circumstances:

        – Lines are dedicated to supplying that distributor.

        – There is no apparent opportunity to share the feeder.

        – It is more practical operationally, and does not impinge on the host distributor's operations if the line or circuit is not owned by the host distributor.

2. The intent of existing supply commitments between distributors should be honored and documented (if not already) through suitable commercial and operating agreements.

3. If LV lines are sold by one distributor to another, established commitments of supply should also be transferred.

4. Sale of lines should be done on the basis of a willing seller and willing buyer.

Voter Summary

Unanimous.

Dissenting Opinions

None.

7.2 PROCESS FOR CONNECTION AND SUPPLY TO ANOTHER DISTRIBUTOR (WHEELING)

[LAST DISCUSSED: JANUARY 6, 2000]

Issue Statement

In another Summary of Recommendation (SOR) entitled *Low Voltage Transmission (LV) Lines*, it was recommended that distributors be obligated to make an offer to wheel power through their service area for another distributor, when requested. The offer must be fair and reasonable and be consistent with the host distributor's published Conditions of Service unless mutually negotiated otherwise.

This SOR addresses the need for a defined process to handle such requests. The issues are:

How should one Distributor make a request for supply from another distributor?

What information must the Connection Applicant supply with the request?

What information must the supplying distributor provide in response to the request?

How quickly must the supplying Distributor respond to the request?

What costs are involved in responding to a request and who pays them?

What kind of formal commercial contractual arrangements are required?

The issue of wheeling rate structure is an important aspect of this discussion, but will be dealt with elsewhere, most likely in a transmission rate hearing.

The issue of load transfers between distributors is dealt with in other SORs.

Options

1. The Distribution System Code (DSC) will not address specific connection and supply process requirements between distributors.

2. The DSC will outline general guidelines and target response times for the connection and supply process between distributors, but will allow distributors to be flexible in meeting these guidelines, relying on the principles of fairness, reasonableness and consistency in review of any resulting disputes.

3. The DSC will specify adherence to a detailed connection and supply process, including

required response times, specific information requirements, defined cost sharing and use of specified connection and supply agreement templates.

Background Information

The historic development of the electrical infrastructure in the province has resulted in many situations where one distributor supplies power to one or more other distributors, on either a shared or dedicated basis. This is an efficient sharing of facilities. Going forward, it is imperative that a suitable process be developed that will continue to encourage future efficient and effective flow of power from one distributor to another.

Historically, distributors would request additional wholesale supply requirements from Ontario Hydro, not a neighbouring distributor, as it was an Ontario Hydro responsibility to deliver to a distributor's boundary. Looking forward, however, it is not clear what obligations transmitters will have with respect to providing for additional supply to distributors, especially when this supply may involve the construction of lines through other distributor's service area.

Implementation Issues

- Development of commercial contracts and Operating Agreements.
- Determination of wheeling rates.

Summary of Discussion

Distributors must have a clear understanding of their responsibilities with regard to connecting and supplying other distributors. Distributors must also be adequately protected in their dealings with other distributors and must be assured of being able to recover adequate revenues associated with their costs in connecting and supplying other distributors.

With the proposed non-exclusive nature of distributor service areas, there may be situations where one distributor would not wish to provide a supply to its neighbor when requested, in hope of being able to supply the new load directly.

There was some discussion about the role of the IMO in the process of providing supply to embedded distributors. There was general agreement that the receiving distributor should be responsibile to register the new or enhanced supply point with the IMO and provide the required registration and load forecasting information if the new or upgraded supply point would be a wholesale point of supply.

Recommendation

Option 2 is recommended. The DSC should outline general guidelines and target response times for the connection and supply process between distributors, but allow distributors to be flexible in meeting these guidelines based on the principles of fairness, reasonableness and consistency in the context of any resulting disputes.

The attached Appendix A provides guidelines for a standardized process for establishing and modifying connections between distributors.

Voter Summary

<No vote taken>

Dissenting Opinions

<Not applicable>

APPENDIX A
A Process for Establishing or Modifying Connections between Distributors

STEP 1 - CONNECTION REQUEST

- Connection Applicant submits a Connection Request to the Supplying Distributor summarizing in writing the required initial and ultimate load requirements, the required in-service date and any other specific requirements.

- The Supplying Distributor carries out a preliminary review and determines the scope and estimated cost of preparing a System Impact Study.

- The Supplying Distributor will respond, in writing within 30 days of receiving the Connection Applicant's request.

STEP 2 - SYSTEM IMPACT STUDY

- Upon receipt of a purchase order or equivalent from the Connection Applicant, the Supplying Distributor will, in cooperation of the Applicant, study in detail all options and recommend the preferred option. The results of the study will be documented in a System Impact Study Report. This will provide the Connection Applicant with preliminary information regarding the work required to provide the requested supply, the required capital contribution and the expected lead time.

- The Supplying Distributor will complete the System Impact Study within 60 days of receiving the Connection Applicant's purchase order to proceed. If, despite the Supply Distributor's best efforts the 60 day target can not be met, the Supplying Distributor will notify the Connection Applicant in writing and provide a new target completion date.

STEP 3 - CONNECTION APPLICATION

- The Connection Applicant reviews the System Impact Study Report and decides whether to proceed or not.

- To proceed the Connection Applicant must submit a Connection Application, provide all necessary Registered Planning Information and issue a purchase order or equivalent for preparation of detailed engineering specifications.

- The Connection Applicant must submit its Connection Application to the Supplying Distributor within 30 days of receiving the System Impact Study Report.

STEP 4 - ENGINEERING SPECIFICATIONS AND COST SHARING ARRANGEMENTS

- Upon receipt of a purchase order or equivalent from the Connection Applicant, the Supplying Distributor will prepare detailed engineering specifications for the required system enhancements, obtain cost estimates for the specified work and determine cost sharing arrangements.
- The Supplying Distributor will provide, in writing, a Project Description and Intent Letter which will include:
  - a description of the proposed project
  - a summary of work to be performed by the Supplying Distributor
  - a summary of work to be performed by the Connection Applicant
  - the Supplying Distributor's capital investment in the project
  - the Connection Applicant's financial contribution to the project
- The Supplying Distributor will provide the required Project Description and Intent Letter within 90 days of receiving the Connection Application from the Connection Applicant.

STEP 5 - FORMAL APPROVAL AND AGREEMENT

- Upon receipt of a signed-back Letter of Intent from the Connection Applicant, the Supplying Distributor will seek formal approval from its Executive and from the Regulator (if necessary).
- The Supplying Distributor will prepare a Connection and Service Agreement outlining the obligations of the Supplying Distributor and the Connection Applicant. This Agreement will become a legally binding and enforceable agreement between the two parties.
- The Supplying Distributor will obtain required approvals and draft a Connection and Service Agreement within 60 days (90 days if Regulatory approval is required) of receiving the signed Letter of Intent from the Connection Applicant.

STEP 6 - CONSTRUCTION

- Acquisition of any required property or property rights.
- Construction of the Supplying Distributor's new or modified system facilities.
- Modification of up-stream transmission facilities (if necessary).
- Construction of Connection Applicants approved connection facilities.
- Typical construction lead times include:

  – New or upgraded distribution lines – 6 mo.
  – Upgraded Distribution Substations – 12 mo.
  – New Distribution Stations – 18 mo. for <50 kV; 24 mo. for >50kV
  – New or upgraded transmission facilities – 24 mo.

  If construction lead times differ from above the Supplying Distributor will inform the Connection Applicant, in writing, of the actual lead time requirements for the specified work.

STEP 7 - CONNECTION

- Commissioning and verification that all connection requirements have been met.
- Connection.

7.3 OPERATING AGREEMENTS BETWEEN DISTRIBUTORS

[FINALIZED: MARCH 10, 2000]

Issue Statement

Many distributors receive supply of electricity through a connection with another distributor as opposed to a transmitter. These "embedded distributors" are reliant upon the "host distributor" for electricity to serve load. The issue is:

> Should the Distribution System Code (DSC) require distributors to have Operating Agreements when the point of supply is between distributors instead of between a transmitter and a distributor?

Options

1. **Minimalist Approach:** The DSC would be silent on the requirement for Operating Agreements between distributors.

2. **Prescriptive Approach:** The DSC would contain requirements for Operating Agreements between distributors and specify the contents and format of the agreement.

3. **Modified Prescriptive Agreement:** The DSC would require distributors to have Operating Agreements between distributors when one distributor supplies another distributor. The contents and format of the agreement would be left to the discretion of the two distributors.

Background Information

Most distributors have had Operating Agreements in place with the former Ontario Hydro to govern the conditions by which the distributor received electricity supply. Generally, distributors that supply other distributors also have had Operating Agreements; however, others have operated on verbal understanding.

Implementation Issues

Option 3 may be difficult to implement if distributors are not able to agree to the terms and conditions of an Operating Agreement. If distributors are unable to finalize negotiations and agree to an Operating Agreement, both would be in violation of their licence.

Summary of Discussion

Operating Agreements will become more important as the electricity market develops. In the past, Operating Agreements may have been somewhat informal and may not have documented all of the verbal information and actual practices that were followed as a matter of day to day business. Some current agreements or practices may contravene market rules or the DSC. Current agreements or practices may also disadvantage a distributor under PBR principles or reporting statistics.

A good Operating Agreement should delineate rules of operating a connection between two distributors and should specify the Conditions of Service that are expected to be delivered by one distributor and received by the other. Although informal arrangements may have worked very well in the past, the new market may change the people involved and the openness of cooperation will be affected by the competition between and comparison of distributors. This environment would not support Option 1.

The discussion around being prescriptive raised the concern that there are a variety of arrangements across the province, based on the diversity of connections between distributors. A prescriptive approach may force unnecessary changes on distributors to achieve compliance, with no real benefit to either distributor involved or their customers. Several members of the group identified a number of special circumstances surrounding connections and operation of equipment that would suggest that Option 2 is not appropriate.

Recommendations

Option 3 is recommended as the appropriate approach for dealing with Operating Agreements between distributors. The DSC should require distributors to have Operating Agreements when one distributor supplies another distributor (including OHNC's distribution services). The contents and format of the Operating Agreement should be left to the discretion of the distributors that participate in the agreement in order to to allow local conditions to be reflected in the agreement.

Appendix A to this Summary of Recommendation lists some of the items that may need to be considered in an Operating Agreement between distributors.

Voter Summary

Consensus.

Dissenting Opinion

None. However, concern was noted that implementation issues associated with requiring distributors to enter into Operating Agreements as a condition of licence may result in violation of the licence if negotiations are not successful. It was suggested that the DSC may require softer wording to include

"best efforts" or "good faith efforts" as opposed to requiring an Operating Agreement.

APPENDIX A

Suggested Information to be Included in an Operating Agreement Between Distributors

1. Introduction or Scope of the document

2. **Definitions** – This should include common terms to be used in the agreement as well as defining the parties to the agreement.

3. **Ownership** – This should define the points of ownership for the physical plant of each distributor.

4. **Assignment of Responsibilities** – This section should describe what the operating authority is (the devices controlled) for each distributor and who will exercise the operating control for each distributor. This section may also list maintenance responsibilities for the devices that affect each distributor.

5. **Normal Operations** – This section should describe routine switching operations, how planned work will be handled, work protection, access to equipment, operating restrictions, work co-ordination, communication and information or data collection under normal operating conditions.

6. **Emergency Operations** – This section should cover emergency power restoration procedures, load cut procedures, voltage reduction procedures as well as communication under emergency or power outage operating conditions.

7. **Metering and Relaying** – This section should specify any metering and relaying responsibilities at the connection point between the two distributors, as well as any upstream or downstream protective device responsibilities.

8. **Costs** – This section should clearly describe the expectations of each distributor with regards to the assignment of costs.

9. **Special Requirements** – Any conditions that are substantially different in operation, cost assignment or provision of service.

10. **Review and Revisions** – This section should specify when and by whom the agreement will be reviewed and renewed. The process for either party to revise the agreement also should be specified.

7.4 THE PROCESS OF CONNECTION WITH TWO DISTRIBUTORS

[FINALIZED: DECEMBER 22, 1999]

Issue Statement

Unless it provides otherwise, a distributor's licence does not grant any right of exclusivity. In addition, a distributor will be obligated to provide certain services to other distributors, possibly including an obligation to distribute electricity to another distribution service territory through a bulk meter. These conditions may have implications for which distributor connects a new customer when more than one distributor is able to provide service to the customer through either a connection or an offer to connect.

Traditionally, a distributor licensed to service a customer that was not physically close to a customer could arrange to connect the new customer through a load transfer agreement with a neighbouring distributor. A load transfer is an arrangement between distributors in which a customer in one distributor's service territory (the geographic distributor) is provided electricity through another distributor's lines (the physical distributor). Load transfer agreements historically have allowed the geographic distributor to service customers in its service territory through the lines of another distributor, thereby preventing the need for immediate expansion and allowing all customers in the service territory to be provided electricity at the lowest cost. The issue is:

> What role should new load transfer agreements have in the process of connection when more than one distributor can service the customer?[1]

Options

1. New load transfer agreements should be prohibited.

2. New load transfer agreements should be allowed by the Board if they are beneficial.

3. New load transfer agreements should be encouraged to facilitate low cost delivery of electricity.

[1] Existing load transfer agreements are another issue that is dealt with separately in a different recommendation.

Background Information

Section 70(6) of the *Ontario Energy Board Act, 1998* (the *Act*) states:

> Unless it provides otherwise, a licence under this Part shall not hinder or restrict the grant of a licence to another person within the same area and the licensee shall not claim any right of exclusivity.

In addressing which distributor would provide service to a customer, there was a concern that licenses for monopoly services, namely distribution and transmission, would not be exclusive. In particular, a distinction was drawn between competitive activities and non-competitive activities. The view was expressed that non-exclusive licenses for monopoly activities would result in inefficiencies and adversarial fighting between monopoly companies. However, the operating assumption of the following discussion is that distribution licenses would not grant the right of exclusivity within a licensed service territory.

It is important to define exactly what a load transfer entails and isolate a load transfer from a situation in which one distributor is providing services to another distributor. The distinction between the two is whether there is a bulk meter between the distributors. This distinction may be clarified as follows:

Load Transfer: A distributor supplies electricity directly to another distributor's customers with no bulk meter as a retail supply point to measure the aggregate flows. There is an agreement between distributors in which the physical distributor charges the geographic distributor according to agreed-upon terms and the geographic distributor charges its customers at its regulated rates.

Delivery of Electricity from One Distributor to Another: A distributor delivers electricity to another distribution system through a bulk meter. In this case, the first distributor is providing distribution or wheeling services and delivering electricity to the other distributor. The bulk meter is a supply point and measures electricity for the purpose of settlements between distributors.

Currently, geographic distributors may be required to pay more to the physical distributor than the geographic distributor collects from its load transfer customers. If the case, the geographic distributor has deferred some capital costs through the load transfer agreement and its other customers are subsidizing the costs for load transfer customers. If the geographic distributor is collecting more from load transfer customers than what is charged by the physical distributor, the load transfer customers are paying more than they would be if serviced directly by the physical distributor to which it is physically connected and the load transfer customers are subsidizing the physical distributor's other customers.

Distributors in Ontario traditionally have operated in service territories that, in practice, were exclusive. This apparent exclusivity included an obligation to deliver electricity to any entity requesting supply within the service territory. In some cases, the economically efficient way to

meet this obligation was to enter into a load transfer agreement with a neighbouring distributor who had distribution lines closer to the potential customer. Load transfer agreements allowed the obligated geographical distributor to service customers in its service territory through the lines of another distributor until expansion was economically justified and the geographic distributor could connect its load transfer customers to its own lines. In other instances, load transfer agreements allowed a geographic distributor to service customers within its service territory using feeders off of high voltage lines owned by another distributor.

Distribution licenses currently do not provide for any right of exclusivity. Under the *Act*, if a new customer in a distributor's service territory wishes to be connected but does not lie along a distributor's line, the licensed geographic distributor would be required to offer to connect. If a neighboring distributor had a line that was closer and wished to provide service to the customer, the neighbouring distributor could request a license amendment to change its licensed service territory and provide an alternative offer to the new customer. Alternatively, depending on the conditions in the Distribution System Code (DSC) related to a distributor's obligation to another distributor, a load transfer agreement could be developed to service this new customer.

The situation where the licensed geographic distributor must make an offer to connect implies an expansion. Under section 92 of the *Act*, any expansion requires Board approval.[2] Thus, even if the offer was accepted, the licensed distributor would have to present the proposed expansion to the Board.[3]

Under either situation described above (a request for change in licensed service territory or an expansion), alternative proposals would be identified and reviewed. Presumably the Board would make a decision based on the facts of the situation and balance the various objectives that are listed in the *Act* as its mandate.

Appendix A identifies different situations that historically would have been handled using a load transfer agreement. In most of these cases, a new load transfer agreement would not be required. However, if there is a need for a load transfer agreement, the issue would be identified and reviewed by the Board either through a request for expansion or a requested change in licensed service territory. The criteria that the Board could apply is discussed in another summary of recommendation.

Implementation Issues

[2] There may be a regulation that sets a criteria for Board approval or limits the number of line expansions that are required to come before the Board.

[3] If not all expansions are required to come before the Board, either the regulation or Distribution System Code should have either a notification requirement or an expansions reporting process that would identify alternatives to the expansion, including examination of the economics of connection by another distributor.

Distributors traditionally have used load transfer agreements to provide cost-effective service to their customers. New concepts such as non-exclusive distribution service territories and lack of a role for new load transfer agreements may seem unworkable at first. This unworkability, however, simply may be due to the novelty of the approach. A key implementation issue is whether the quality and availability of distribution services will be adversely affected if new load transfer agreements are not allowed. Thus, it is important from an implementation standpoint to consider all of the implications that various parts of the new legal requirements and regulatory rules may have on distribution services and the most efficient use of the existing infrastructure within the Province of Ontario.

Another implementation issue is the increased regulatory burden on the Board. Review by the Board of all requests for expansions and licence amendments is likely to result in delays in distributor operations and connections. It will be important that the Board establish a streamlined process to approve requests for expansions and changes in licensed service territories without sacrificing the opportunity for rationalization.

Summary of Discussion

Decisions on many other issues will determine whether new load transfer agreements should be encouraged or discouraged in the new regulatory regime. In particular, the role of new load transfers will be affected by issues related to boundary expansions under section 83 in The Boundary Expansion Provisions of the *Power Corporation Act* (secton 83 o f the PCA), legal requirements in the *Electricity Competition Act, 1998*, exclusivity of distribution licenses, distributor obligations to other distributors, and pricing rules in the Retail Settlements Code (RSC). Each of these factors is discussed below.

Section 83 of the Power Corporation Act

Section 83 of the PCA allowed municipal electric utilities (MEUs) to purchase distribution equipment from Ontario Hydro. However, Ontario Hydro made decisions with respect to which equipment would be sold. As a result, there are feeders that were not sold to MEUs under section 83 that are contained within the service territory. Certain distributors remain dependent on electricity from Ontario Hydro's feeders for physical their customers under load transfer agreements.

Distributors who are in this situation would like to purchase these feeders to continue physical their customers or would like rules that would allow them to continue to provide quality service to their customers in a reliable manner. To do this, these distributors would like the following:

- Continuing ability to service customers in their service territory through load transfer agreements.
- Permission to ensure the safety of their operations staff by being able to trouble shoot and

repair problems on any distribution equipment in their service territory that is used to service their customers, even if it is owned by another distributor.

- Ability to build a looping system or meet new customer load with in-fill even if another distributor already has a distribution line in the area.

- Knowledge of who their customers will be for long-term planning of building feeder circuits and substations.

These distributors agree that retaining a customer should be for reasons of adding value as opposed to service territory area protection. In addition, physical new areas through load transfer agreements should be on a business case basis, not just because the new customers "belong" to a distributor.

Legal Requirements of the Electricity Competition Act, 1998

The *Electricity Competition Act, 1998* requires any person who distributes electricity to be licensed. Distribution licenses describe the distributor's service territory; distributors are not allowed to distribute electricity outside of their licensed service territories.

A possible implication of these legal constraints is that a neighbouring distributor may have to be licensed to distribute electricity via a load transfer agreement on behalf of another distributor.[4] If the case, new load transfer agreements would not bypass the licensing requirement for a neighbouring distributor to supply electricity in another distributor's service territory. Whereas historically, load transfers have addressed an issue created by an obligation to provide service, they may mandate non-exclusive service territories. In other words, existing and new load transfer agreements, to the extent they are allowed, may require at least one and possibly both distributors to be licensed to service load transfer customers.

Exclusivity of Distribution Licenses

Currently, interim distribution licenses do not provide any right of exclusivity and this discussion assumes that end-state distribution licenses will not provide otherwise. In addition, a distributor's obligation to supply electricity to any entity in the distributor's service territory has been somewhat modified. Distributors only have the obligation to connect or to offer to connect a building or facility in their licensed service area. The offer to connect implies that a customer who does not wish to pay the price offered by the distributor negates any obligation by the distributor to provide connection and delivery of electricity to the customer. If the customer chooses, the customer can solicit another bid by a neighbouring distributor. The neighbouring distributor

[4] This issue does not seem to be a problem under the Interim Distribution Licenses which define a distributor's service territory according to their traditional franchise territories. However, it may be an issue under the end-state distribution licenses.

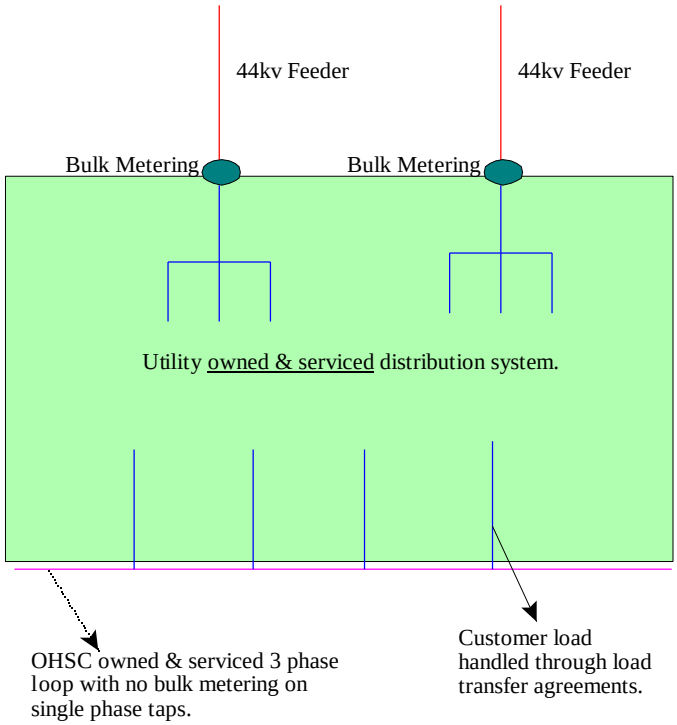
could make an offer, and if accepted, could apply to the Board for a licence amendment that would include the new customer in its licensed service territory. The OEB most likely would review the request and the two offers and make a decision with respect to which route is the economically efficient and societally acceptable outcome. The customer, meanwhile, would wait for the Board to determine the electricity distributor and the date electricity service would begin.

A Distributor's Obligation to Other Distributors

The DSC will include a description of a distributor's obligations to other distributors. It may be that the premise of this section in the DSC will be that distributors should own and operate any line in their service territory. There may be exceptions to this rule if certain conditions are met.[5] If this serves as the basic premise of a distributor's obligation to other distributors, load transfer agreements may directly counter the underlying premise of a distributor's obligation to other distributors. This could be addressed by requiring bulk meters or interval meters for any transaction that occurs between distributors.

There may be circumstances, however, when load transfer agreements are warranted. For example, at least one municipal electric utility owns the single phase lines that feed off an Ontario Hydro Services Corporation (OHSC) three phase loop. The municipal utility's customers are supplied electricity from single phase taps which obtain electricity from the OHSC three phase loop. During municipal restructuring, OHSC maintained the three phase loop through the municipality for system stability in case of a problem on the main feeder. The customers are within the municipal boundaries, and as such receive all of their other services (water, sewage, garbage pickup) from the municipality. Customers also have received all of their billing and services (including electricity supply) from the local Public Utilities Commission (PUC). The three phase line is not separately metered as part of the 44 kv utility supply lines; as such, these customer loads do not show up in the main load data gathered from the wholesale metering points. This situation is illustrated in the following schematic:

[5] For example, supply would be dedicated to the distributor and there would be no apparent opportunity to share the feeder.



Due to historic franchise areas, customer expectations of receiving all of their services from their local municipal entities, and the excessive cost of building a separate three phase line to service these customers, load transfer agreements have been arranged to add these customers to the wholesale bill of the municipal utility. Customer loads are subtracted from the wholesale billing data of the physical utility that provides physical delivery.

In this situation, the geographic distributor provides all customer interaction and customer service. It has the infrastructure set up to do so, whereas the physical distributor does not. If there is "in-fill" in which a new customer moves into a lot that is in between two other users being served under the existing arrangement, the geographic distributor may be the only one able to service the customer. Thus, there may be a need for these types of load transfer agreements going forward. A new load transfer agreement could be viewed as one distributor (the geographic distributor) contracting with another distributor (the physical distributor) as a means to fulfill the obligation to make an offer to connect.

The real issue in this example, however, may not be ownership of the lines which service the customers, but the method of providing power to the municipally owned wires and the wholesale settlement process where customers are supplied through part of a municipal system which is not

bulk metered. New load transfer agreements may be a mechanism by which new customers being serviced off the municipal-owned wires may be metered and bills settled. Alternatively, new meters could be installed between the single phase lines and the OHSC three phase loop in order to facilitate settlements and allow the distributors to measure the aggregate energy supplied through the single phase lines.

Retail Settlements

The RSC will describe the settlement process and how distributors are reimbursed for electricity that is distributed through its wires, including how some load transfer customers should be charged for electricity.[6] The RSC currently does not address load transfers that are not bulk metered or interval metered. The underlying recommendation was that all load transfer customers should be interval metered if they are not provided electricity via a bulk meter point that could be used for settlement purposes.

An alternative to this approach is to allow a load transfer agreement. The physical distributor (i.e., the neighboring distributor that owns and operates the physical distribution system to which the customer is connected) would charge the geographic distributor for the customer. The customer's geographic distributor (if different than the physical distributor due to the load transfer agreement) could be required to pass these charges through directly to the customer, thereby charging the customer according to the cost and distribution charges of the physical distributor. If the case, there would be no economic incentive for either distributor to enter into a new load transfer agreement. The physical distributor providing physical supply would be in the same position as if the customer was a direct customer; the geographic distributor would receive no benefit because it simply passes through the charges from the physical distributor.[7] With neutral economic incentives, there may be no incentive for new load transfer agreements.[8]

In summary, there may not be any economic role for load transfer agreements in the new electricity market. Most certainly, they should not be encouraged since the mechanism to

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[6] The Ontario Market Design Committee (MDC) proposed a design for the retail settlements system that would require distributors to calculate the weighted average spot price for electricity for each customer and pass this commodity cost on to either the customer or to a competitive retailer chosen by the customer.

[7] If a physical distributor is not able to pass through the charge with a slight mark-up, there may be costs associated with the administrative costs of sending the bill to the customer (e.g., stamps, envelopes, billing personnel) that are not recovered. This could create negative incentives for the geographic distributor to enter into load transfer agreements, but could be sufficiently offset by the avoided cost of building out to the customer. Alternatively, allowing a mark-up may encourage load transfer agreements at the expense of the load transfer customers.

[8] This conclusion assumes that retail settlements are designed efficiently in order to be neutral for each distributor. To the extent that there is potential profit for either the physical distributor or the billing distributor, load transfer agreements could proliferate.

encourage them could result in an inefficient allocation of unnecessary costs. On the other hand, there does not seem to be any reason to prohibit new load transfer agreements because neutral economic incentives may automatically limit their use. If there is a situation that distribution licenses or codes of conduct do not address, and load transfer arrangements are a mechanism to allow a distribution system to operate more efficiently in that situation, they should be allowed.

Some members reiterated the historic reasons for having load transfer agreements and did not feel that load transfer agreements should be prohibited. For better or worse, historic evolution and economics required load transfer agreements. If they are not used in the future, the Board will have to deal with the issues that historically were solved by load transfer agreements. These issues include distributors fighting over service territory, fighting over certain customers, and building uneconomic expansions so as to increase revenues and be in position to service new customers. Instead of cooperating with each other, as distributors historically have done, there was a fear that distributors will be faced with incentives to compete with each other and infringe on other service territories, thwarting the goal of economically efficient investment in distribution infrastructure. However, these disputes are likely to arise as a direct result of sections 92 and 74 of the *Act* under which the Board is required to review expansions and amend licences and will occur regardless of how new load transfers are handled. Allowing new load transfer agreements does not eliminate the Board's role in these matters.

Recommendation

Option 2 is recommended. New load transfer agreements should be allowed by the Board if they are beneficial.[9] However, there appears to be a reduced role for new load transfer agreements in the restructured electricity market if service territories are merged or amalgamated and a distributor's licence does not provide any right of exclusivity.

Voter Summary

Unanimous.

Dissenting Opinions

No dissenting opinion at this time.

[9] The criteria that the Board should apply in determining whether a new load transfer agreement is beneficial is addressed in another recommendation.

Appendix A

Examples of the Process for New Connections Between Two Distributors

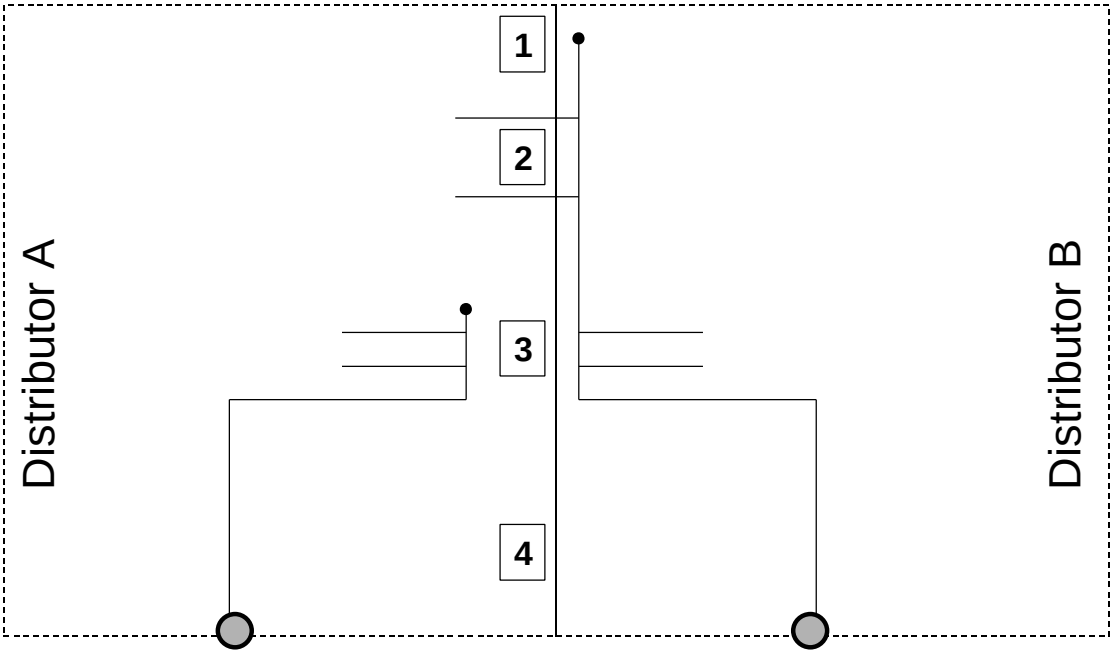
Historically, distributors in Ontario have had service territories in which they were obligated to provide electricity supply. In some cases, where new customers were not located near the distribution system of their geographic distributor, the geographic distributor could service the customer using load transfer agreements with neighboring distributors. Going forward, distributor licenses may not grant any right of exclusivity. In addition, distributors will not have the same obligation to connect, but rather an obligation to offer to connect. This new regime will have to be able to handle situations that traditionally were handled with load transfer agreements. This paper identifies historical situations that warranted load transfer agreements and describes how they could be handled in the new regime.

Under each situation, it is likely that the Board will play some role in the outcome. Either the Board will have to approve an expansion, modify the service territory of a licence or ensure that alternative arrangements have been considered. To ensure that distributors can respond quickly to a request for connection and customers can be provided with electricity quickly, the Board should adopt a streamlined process to allow applications to be processed quickly and efficiently. Although there may be some instances where the Board would be required to have a full hearing, processes could be put into place that simplify the Board's approval process if certain conditions are met. These streamlined processes should aim to decrease regulatory burden without sacrificing potential efficiencies that could be gained through Board review.

HISTORICAL SITUATIONS ADDRESSED BY LOAD TRANSFERS

The following chart illustrates four situations that historically may have been addressed with load transfer agreements.

Examples of New Connections
Between Two Distributors



Under legislation and licence obligations, each of these new connections would be assured the ability to receive service. Whereas defined service territories and load transfer agreements historically were used to determine which system physically supplied the customer, a world without new load transfers would place the burden on the Board, either through approval of an expansion or approval of a modification to a distributor's service territory. Each situation and the manner in which the Board could address it is described below.

1) NEW CUSTOMER LIES ALONG DISTRIBUTOR B'S LINE

Customer Location: Located in Distributor A's service territory; lies along a distribution line of Distributor B.[10]

Obligations of A: Distributor A must make an offer to connect.

[10] This situation could occur on the border or within Distributor A's service territory if the new customer is located along a feeder line connected to Distributor B.

Obligations of B: Distributor B could be obligated to connect under the *Electricity Act, 1998* since the customer lies along its line, but is not licensed to service customer unless it obtains a licence amendment that modifies its service territory to include the customer.

Under this situation, Distributor A would make an offer to connect which would include an expansion. Distributor A could not connect the customer until it received leave from the Board to expand (section 92(1)). When Distributor A's application to expand is submitted to and reviewed by the Board, alternative solutions also may have to be submitted.[11] It may be recognized that the customer lies along Distributor B's line. The Board then may request information on the costs of having Distributor B connect the customer, including review of a license amendment modifying Distributor B's service territory. In determining the appropriate way to connect this customer, the Board should review the following:

- Economic analysis of an expansion by Distributor A, possibly including:
  - Net Present Value calculation.
  - Expected development in Distributor A's service territory over the short-term and long-term (e.g., 1, 5, 10 and 25 years).
- Economic analysis of the cost to connect for Distributor B (e.g., is Distributor B able to connect without requiring reinforcement of an electricity distribution line).
- Economic result for the customer, considering both the proposed charges to connect and subsequent distribution charges under existing rates for both Distributor A and Distributor B.
- Customer's preference and timing constraints.

2) IN-FILL CUSTOMERS

a) Distributor A In-Fill

Customer Location: Located in Distributor A's service territory; lies along a distribution line of Distributor B and between two feeder lines that belong to Distributor A.

Obligations of A: Distributor A may be required to connect since the customer lies along its feeder lines. However, Distributor A can only do so if able to attach a feeder line to Distributor B's distribution line.

[11] If the expansion meets certain conditions, it may not have to come before the Board. However, it is likely that alternative options will have to be identified and examined regardless of whether a Board hearing is required.

Alternatively, Distributor A may make an offer to connect and expand its existing lines to provide electricity to the customer.

Obligations of B: Distributor B could be obligated to connect under the *Electricity Act, 1998* since the customer lies along its lines, but is not licensed to service the customer unless it obtains a licence amendment that modifies its service territory to include the customer. Depending on a distributor's obligation to another distributor, Distributor B may be required to allow Distributor A to attach a supply line to its system.

Under this situation, Distributor A already is servicing the customer's neighbours and has set up the infrastructure to do so, including meter reading cycles, maintenance repair schedules and billing protocols. It would not be incrementally costly to make a new connection so long as Distributor B allows a supply line to attach to its distribution line. For settlement reasons, Distributor B may require an interval meter either for the customer or for the set of Distributor A's customers. In this situation, Distributor B would not contest connecting a supply line because it would be too expensive for it to set up the infrastructure to service a new customer in that area. Thus, Distributor A could make a connection and the customer could be serviced at a lower cost. No Board review would be necessary.

If Distributor B does not to connect the customer, then the scenario is the same as Scenario 1.

b) Distributor B In-Fill of Existing Load Transfer Agreement Customers

Customer Location: Located in Distributor A's service territory; lies along a distribution line of Distributor B and between two feeder lines that belong to Distributor B with which Distributor B provides electricity to Distributor A's customers (perhaps under existing load transfer agreements).[12]

[12] There are numerous ways in which these load transfers may take place:

- The customers are fed from a primary runoff; Distributor A owns the first span of primary, switch/arrester up to and including the hot line clamp plus the transformer on the customer's property.
- The customers are fed from a single transformer and Distributor A owns the first span of service wire, transformer, switch/arrester up to and including the hot line clamp.
- Distributor A owns the first span of service wire to their customer only, and Distributor B owns the transformer, switch/arrester, etc.
- Distributor A owns first span of service wire up to and including the transformer;

Obligations of A: Distributor A is obligated to make an offer to connect.

Obligations of B: Distributor B could be obligated to connect if licensed to service the customer since the customer lies along its lines. However, if not licensed to service that customer, Distributor B would have to obtain a licence amendment that modifies its service territory to include the customer's location.

In this scenario, Distributor B already is physically serving the customer's neighbors with existing infrastructure. Distributor A has set up its own infrastructure to service the customer's neighbors under the load transfer agreement, including meter reading cycles, maintenance repair schedules and billing protocols. It would not be incrementally costly for Distributor B to make a new physical connection. However, Distributor B may not have the facilities set up to read their meters or provide customer service. In addition, it may cause confusion for neighbors who are sent bills from different distribution companies. As an alternative, the distributors could enter into a load transfer agreement to service the new customer in a manner similar to its neighbors. To do this, however, Distributor B may have to have a licence amendment in order to distribute electricity to the new customer.[13] The Board would review the application and determine if the new load transfer agreement is justified or if Distributor B should simply service the new customer as its own.

c) Distributor B In-Fill

Customer Location: Located in both Distributor A and Distributor B's service territories (a historic accident due to previous load transfer agreements that have since been transferred to Distributor B). Customer lies along a distribution line of Distributor B and between two feeder lines that belong to Distributor B.

Obligations of A: Distributor A is obligated to make an offer to connect because it continues to be licensed for that service territory.

Obligations of B: Distributor B is licensed to service that customer and is obligated to connect since the customer lies along its lines.

Distributor B owns the switch/arrester, etc.

[13] No person may own or operate a distribution system (i.e., a system to convey electricity at less than 50 kv) without a licence to do so (*Ontario Energy Board Act, 1998*, section 57(a)).

Same situation as Scenario 1 except that Distributor B does not require a licence amendment. In determining whether the customer should be serviced with a connection to Distributor B or an expansion by Distributor A, the Board should consider the same factors as those for Scenario 1.

3) NEW CUSTOMER LIES ALONG TWO DISTRIBUTOR'S LINES

Customer Location: Located in Distributor A's service territory; lies along a distribution line of both Distributor A and Distributor B.

Obligations of A: Distributor A is obligated to connect since the customer lies along its lines.

Obligations of B: Distributor B could be obligated to connect under the *Electricity Act, 1998*, but is not licensed to service customer unless it obtains a licence amendment that modifies its service territory to include the customer.

Under this situation, Distributor A could connect the customer immediately. Distributor B could connect but would have to request a licence modification. If the customer would like to be connected to Distributor B, the Board should review the following:

- Economic result for the customer, considering both the proposed charges to connect and subsequent distribution charges under existing rates for both Distributor A and Distributor B.
- Customer preference and timing constraints.
- Potential for stranded cost for either distributor.
- Inefficiencies caused by granting customer to one or the other (e.g., calling systems, confusion in meter reading, billing system).

4) NEW CUSTOMER DOES NOT LIE ALONG ANY DISTRIBUTOR'S LINES

Customer Location: Located in Distributor A's service territory; does not lie along any line.

Obligations of A: Obligation to offer to connect.

Obligations of B: No obligation to connect or offer to connect.

Under this situation, Distributor A would make an offer to connect the customer and would have to obtain approval for expansion from the Board. Distributor B is not obligated to make an offer to connect but could offer to connect. If Distributor B's offer

was accepted, it would have to request a licence modification and expansion approval. If during the hearing for expansion approval, or if the customer requests an offer to be connected to Distributor B and prefers Distributor B's offer to that of Distributor A, the Board should review the following before approving the expansion and licence amendment for Distributor B:

- Economic analysis of an expansion by Distributor A, possibly including:
  - Net Present Value calculation.
  - Expected development in Distributor B's service territory over the short-term and long-term (e.g., 1, 5, 10 and 25 years).
- Economic analysis of an expansion by Distributor B, possibly including:
  - Net Present Value calculation.
  - Expected development in Distributor B's service territory over the short-term and long-term (e.g., 1, 5, 10 and 25 years).
- Economic result for the customer, considering both the proposed charges to connect and subsequent distribution charges under existing rates for both Distributor A and Distributor B.
- Customer preference.
- Potential for stranded cost for either distributor.

Based on the analysis of each situation above, it is clear that responsibility for connecting or offering to connect new customers is clearly defined. It also is clear that in each situation, there is opportunity for the Board to recognize the most economically efficient outcome and permit it to occur. The Board also has the ability to make decisions that minimize stranded costs and customer confusion. Furthermore, if there is a situation where new load transfers are warranted, the Board may allow them if they are beneficial.[14]

[14] The criteria that the Board could apply to determine whether a load transfer agreement would be beneficial is discussed in a separate SOR.

7.5 CRITERIA FOR APPROVING OR REJECTING NEW LOAD TRANSFER AGREEMENTS

[FINALIZED: DECEMBER 22, 1999]

Issue Statement

In another summary of recommendation (SOR), the Distribution System Code Task Force described the process by which a customer is connected between two distributors and recommended that new load transfer agreements be allowed if they are beneficial.[15] The SOR does not address what criteria should be applied to a petition for a new load transfer agreement to determine whether a new load transfer agreement should be approved or rejected. The issue is:

> What criteria should the Ontario Energy Board use to assess whether a new transfer agreement should be approved or rejected?

Options

A new load transfer would affect many parties. The Board could assess the cost and benefits of the new load transfer agreement on:

1. The distributor providing physical supply (the physical distributor).
2. The distributor obligated to offer to connect the customer (the geographic distributor).
3. New load transfer agreement customers.
4. Other customers serviced by the distributors.
5. A combination of the above.
6. All of the above.

Background Information

A load transfer occurs when a distributor supplies electricity directly to another distributor's customers with no bulk meter to measure the aggregate flows. The physical distributor charges the billing distributor in accordance with a load transfer agreement.

[15] In most cases, the potential need for a new load transfer agreement will be brought before the Board either through a request for expansion or through a distributor's request for a modification to its licensed service territory.

If a distributor delivers electricity to another distribution system through a bulk meter, the delivering distributor is providing distribution services and delivering electricity to the other distributor. The bulk meter measures electricity for the purpose of settlements between distributors. For purposes of this discussion, the situation with a bulk meter would not be considered a load transfer agreement and customers located on either side of the bulk meter would not be considered load transfer customers.

Historically, the need for a load transfer agreement was determined and negotiated between the two distributors. Exclusive franchises and an obligation to provide electricity required a franchise distributor to provide electricity to new customers in the most cost-effective manner. In some cases, the most cost-effective approach was to contract with a neighbouring distributor to provide physical supply to the franchise customers. Under the new regulatory regime, the Board will be involved in situations that could require a new load transfer, either because the situation is an expansion by one distributor in making an offer to connect or a request for a change in the licensed service territory by another distributor which would require notification to all affected parties. In these situations, the Board would be responsible for ascertaining whether new load transfer agreements are warranted.

Implementation Issues

Historically, distributors had more incentive to enter into "gentlemen agreements" by which a geographic distributor's customers could be provided electricity from another distribution system. In the new regime, incentives may be different. A neighbouring distributor may prefer to serve the customer directly as opposed to servicing that customer for another distributor. Without the right to exclusivity, licensed distributors may be competing for service territory and the right to provide service to new customers. On the other hand, the drive for higher dividends may offset some of the incentives to expand inefficiently. Ultimately, the Board will be responsible for ensuring rationalization of the multiple distribution systems in Ontario in a timely manner that allows distributors to provide service connections for customers.

The key implementation issue is the potential regulatory burden on the Board. If the Board must assess every request for a new load transfer agreement, the regulatory burden could be overwhelming. However, there may be three factors that could minimize the regulatory burden. First, load transfer agreements are the exception rather than the rule. Thus, there may not be many situations in which the Board will be required to assess the costs and benefits of a new load transfer agreement. Second, load transfer agreements tend to address a situation with multiple customers and would not be assessed on a customer-by-customer basis, but as a group of customers. Third, the Board is likely to set up rules surrounding requests for expansions and approval of changes in licensed service territories that would minimize the time the Board is required to devote to these issues. These rules also may encompass the potential for new load transfer agreements and lay out the conditions under which they would be considered acceptable without requiring a hearing by the Board.

Summary of Discussion

Various market participants could be affected by a new load transfer agreement. The effect on each market participant could be assessed as part of the approval process. The items that could be part of this assessment for the cost and benefits to each market participant are described below.

The Distributor Licensed to Offer to Connect the Customer

- Projected revenues and costs to the distributor of servicing the load transfer customer.
- Projected cost to the distributor to provide physical supply to the customer.
- Future expansions that could bring the servicing distributor closer to the customer.
- The effect of a load transfer agreement on the distributor's licensed service territory.

The Distributor to Provide Physical Supply

- Projected revenues and cost to the distributor providing physical supply under the load transfer agreement.
- Projected cost for the physical distributor to provide customer service (i.e., billing, call center, etc.) to the new customer.
- The effect of a load transfer agreement on the distributor's licensed service territory.

New Load Transfer Agreement Customers

- The cost to the new customer under a load transfer agreement.
- The cost to the new customer without a load transfer agreement if provided physical supply directly by either distributor (offer to connect plus distribution rates).
- Potential for customer confusion with respect to customer service if two distributors provide service to that area.[16]
- Public and worker safety issues if two distributors provide service to that area.[17]
- The customer's preference, all other things being equal.

[16] Customers may call the wrong distributor or experience confusion that causes delays in restoration service. Load transfer agreements should clarify responsibilities between distributors.

[17] It is confusing and potentially dangerous to workers and the general public to have more than one utility operating within the same geographic area. Without a clearly defined service area it is extremely difficult to identify operating control, ensure worker protection and to coordinate emergency response (electrical emergencies as well as police, auto accidents and fires).

- The ease with which the customer can receive connection in a timely manner.

Other Customers Serviced by Each Distributor

- Potential efficiencies gained through a load transfer agreement.
- Potential for stranded cost if the customer is assigned to one distributor or another.
- Potential for cross-subsidy between the new customer and existing customers.
- Potential for customer confusion with respect to customer service if two distributors provide service to that area.
- Public and worker safety issues if two distributors provide service to that area.

Some of these items can be made neutral through rules that determine how existing and new load transfer agreements are to be transacted. For example, a rule could be made that would require the servicing distributor to pass through the physical distributor's charges directly to the load transfer customer. In this way, the new load transfer agreement customer would be indifferent from an economic standpoint about whether it is being serviced by one distributor or the other. This approach also would minimize the potential for cross-subsidization between load transfer customers and other customers. These rules are discussed in another recommendation.

Recommendation

Option 6 is recommended. The effect of a new load transfer agreement on all parties should be assessed. In determining whether a customer should be serviced through a load transfer agreement as opposed to being serviced directly by the physical distributor, the Board should look at the costs and benefits for each market participant that could be affected by the load transfer agreement. If the load transfer agreement is the least cost approach that provides the greatest benefits to each market participant, it should be approved. If the load transfer agreement imposes costs on certain parties, these costs should be compared to the benefits enjoyed by other parties. New load transfer agreements should be allowed if they provide or maintain value.

Voter Summary

Unanimous.

Dissenting Opinions

None.

7.6 EXISTING LOAD TRANSFER ARRANGEMENTS

[FINALIZED: JANUARY 26, 2000]

Issue Statement

Existing load transfers are an arrangement between distributors, which accommodated the legal requirement of a distributor to provide electrical service within its franchised area in the most cost-effective manner due to the proximity to the supplying distributors facilities. Under the new regulatory regime, distribution licenses do not grant franchise areas. The new regulatory regime also allows for dividend returns for capital expenditures, which are in the best interest of consumers. The issue is:

> Should existing load transfers be allowed to continue in the new electricity market? If so, how will they be managed under retail settlement, how will supplying distributors recover their costs and what rate will customers be charged?

Options

1. Existing load transfers should be phased out by allowing the geographical distributor to extend its distribution system to service the resident customer.

2. Existing load transfers should be phased out by allowing the physical distributor to provide service to all customers connected to its distribution system.

3. Existing load transfers should be allowed to continue at the applicable rate of the geographical distributor.

4. The two adjacent distributors are free to negotiate their own arrangements to sell, transfer or buy back the assets that connect load transfer customers.

Background Information

Existing load transfers are only for those customers connected to an adjacent distributor where no bulk meter is installed between the supply point and end user. Traditionally, adjacent distributors have made arrangements to supply the customers from the nearest point of supply for economic reasons.

The former *Public Utilities Act*, like the *Electricity Competition Act, 1998*, requires that the distributor connect customers upon requests, within certain parameters. The right to construct lines to service customers within a distributor's service area is still subject to the approval of the appropriate road authority. Any cost differentials between the adjacent distributors is not seen by the customer, as the customer pays the geographical distributor's rates regardless of the supplying

distributor's costs. Adjacent distributors have traditionally agreed with each other on the appropriate costs for load transfers and it is not uncommon for the geographical distributor to pay more than it collects to offset its deferred costs for not incurring the capital costs to supply the customer itself. The servicing distributor, in agreeing to connect the load transfer customer, provides a more convenient, cost-effective supply point for the geographical distributor.

The customer has established service and political allegiances within its geographical boundaries.

Implementation Issues

The economic advantage of supplying load transfer customers from the nearest point of supply may be lost if distributors are forced to connect all geographical customers to their system. The initial sole shareholder, the Municipality, may direct the uneconomic expansions to serve all the customers within its boundaries.

Appeals may be launched with the OEB by adjacent distributors who wish to serve more profitable load centres, which may strand assets. Until there is only one WIRESCO in the Province of Ontario, there will always be load transfers, albeit with the emphasis on municipal restructuring throughout the province the numbers of total load transfers becomes fewer and fewer.

If existing load transfers are allowed going forward, in-fill situations for new load transfers could become hazardous and confusing for customers if a "leap-frogging" approach to servicing is allowed to occur by having more than one distribution authority within the same geographic area.

The Net System Load Shape (NSLS) of the servicing distributor is affected by its connected load and all those associated costs should be recoverable.

In an effort to make load transfers revenue neutral it was suggested that rules could be established to minimize the Boards review of these situations:

- The distributor that provides physical supply to a load transfer customer should receive the same compensation for providing the commodity and distribution services to that customer as if it were billing the customer directly under the Retail Settlements Code.

- The load transfer agreement customer should be required to pay the same distribution and commodity charges as if it were a customer of the geographic distributor. In other words, the servicing distributor would be required to pass through the geographic distributor's charges, with no additional administrative charge.[18]

[18] If Standard Supply Service (SSS) is different from a spot price pass-through and varies between distributors, the load transfer customer would be responsible for paying charges under the physical distributor's SSS.

- If the physical distributor performs services for the load transfer customer that otherwise would be performed by the geographic distributor (e.g. meter reading, billing, call centre), the physical distributor may charge the geographic distributor for such services. The cost of such services may not be passed on to the load transfer customer except through an administrative charge levied by the geographic distributor.

- Each distributor should be responsible for system reliability and maintenance of any distribution equipment it owns that is used to service the customer.

- Both distributors should have access to any equipment used to service a load transfer customer and should have the mutual arrangements documented in the Operating Agreement between distributors.

- Access to the equipment by a non-owning distributor could be limited to emergency situations or for disconnection

- Disconnection may be performed by the geographic distributor but only in accordance with the Retail Settlements Code or Standard Supply Service Code.

- The physical distributor should be responsible for any customer service calls or issues related to physical distribution and supply; the geographic distributor should be responsible for any other issues, unless the customer has a competitive retailer, in which case the retailer is responsible for non-distribution issues.

- A retailer that provides competitive supply to the load transfer customer should receive the customer's bill directly from the geographic distributor and be responsible for compensating the physical distributor for the commodity and distribution services consumed by the customer.

- A retailer that provides competitive supply to the load transfer customer would be subject only to the physical distributor's prudential requirements.

Summary of Discussion

It was agreed that the purpose of load transfers should be to utilize the existing infrastructure as efficiently as possible without having an adverse effect on adjacent distributors. Conversely, a distributor that has commited to provide service is obligated to maintain the connection until a mutually agreed to alternative is arranged by both distributors.

The group thought that load transfers, which generally only occur on boundary roads, could be compared to snow removal by adjacent municipalities. It does not make sense to only plow one side of the road or to send out two different snowplows to the same road. Similarly, it does not make sense to build two distribution lines down the boundary roads.

Section 83 of the *Power Corporation Amendment Act, 1994*, permitted restricted utilities[19] to expand to their full municipal boundaries either in phases or all at once and laid out the procedures and rules of how such expansions would occur. Some utilities did not concur with Ontario Hydro's (predecessor of Ontario Hydro Services Company) interpretation of the statute and have challenged the asset transfers through relief mechanisms contained in section 83.

Load transfers should be limited wherever possible, and where practical, bulk metering should be installed when multiple transfers are in place.

There is a cost to provide distribution services to another distributor; those costs should be recoverable. Ideally, load transfers should be revenue neutral. However, most existing load transfers are not revenue neutral.

It was agreed that a five-year transition period would provide an appropriate period of time to assess the new regulatory influences on rates, treatment of capital contributions, settlement issues and possible municipal restructuring initiatives that may impact on the treatment and number of load transfer customers.

An illustrative diagram and a chart were prepared to demonstrate how existing load transfers are handled and potential scenarios.

Diagram #1

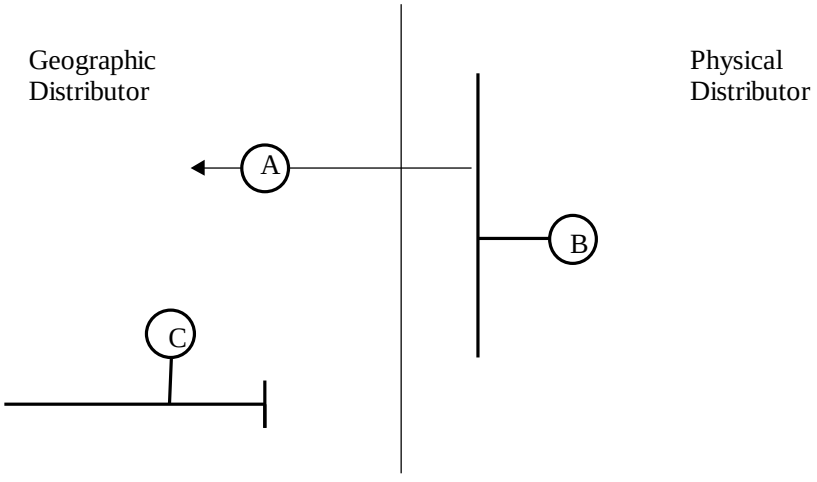


Chart #1

CUSTOMER	Cost Incurred by Distributors	Rate Billed to Customer

[19] These utilities were restricted to the existing service territories they had prior to regionalization and had to either expand completely to their new municipal boundaries or not at all.

A	Physical Rate	Geographic Rate
B	Physical Rate	Physical Rate
C	Geographic Rate	Geographic Rate

Recommendation

It is recommended that all of the options should be permitted, and that a five-year transition period, from the date of market opening, be implemented.

Existing load transfers should be allowed to continue at the applicable geographical distributors rate for five years. Within the five-year period, the geographical distributor should commit either to extend its distribution system to service the resident customer or allow the physical distributor to provide service. At the end of the five-year transition period, the load transfer customer must pay the applicable physical distributor's rate even if the load transfer customer remains a customer of the geographical distributor. The two adjacent distributors are free to negotiate their own arrangements any time within the five year transition period but must commit to connect or disconnect the load transfer customers to their own distribution system.

Voter Summary

Unanimous.

Dissenting Opinions

None.

7.7 SHARED TRANSFORMATION STATIONS

[FINALIZED: DECEMBER 1, 1999]

Issue Statement

Transformer stations (TSs) transform high voltage electricity transmitted through transmission lines into lower voltage that can be conveyed through distribution wires. The development of the wholesale electrical infrastructure in the province has resulted in many situations in which TSs have been planned and built to serve the needs of multiple distributors. Such development represents an efficient utilization of resources. The issue is:

How will the TS transformation be managed in the future?

Options

1. The Transmission Company could continue to plan and provide for a province-wide transformation pool for existing and future TS capacity requirements. This would not preclude distributors from planning and providing for their own TS capacity requirements, if they wish.

2. The Transmission Company could continue to manage the existing TS transformation pool (including managing increases in capacity), but new TS requirements would be planned and implemented solely by distributors (individually or on partnership bases).

3. The Transmission Company could decide that new TS capacity requirements are the sole responsibility of distributors and sell some or all of existing TSs to distributors in the future.

Background Information

Under the old integrated supply system, TSs were planned, constructed and managed by Ontario Hydro for the benefit of all. Going forward, it is imperative that established supply arrangements for these shared facilities be honored and retained and that suitable processes be developed to encourage efficient and effective sharing of supply facilities. Currently, there are some distributors in the province that own and operate TSs connected to the 115 kV or 230 kV grid.

Implementation Issues

- Asset ownership and transfer;
- commercial contract and operating agreement development;

- Potential impact of some existing TSs, or portions there of, on the integrity of the integrated transmission system; and
- Distributors' abilities to manage their own TS requirements.

Summary of Discussion

If TSs serving more than one distributor are sold, there is a potential impact on other distributors' continuing ability to use transformation capacity at those TSs. The sale of a TS to a distributor also implies that responsibility for future TS capacity planning should be transferred to that distributor (and other distributors that use the station). This could have significant impact on maller distributors whose load levels do not warrant dedicated TSs.

Due to the historic integrated supply philosophy, particularly regarding protection design, some existing TSs or portions thereof may have sufficient potential impact on the integrated transmission system such that they could not or should not be sold.

Moving forward, distributors who choose to provide their own TS capacity (rather than acquiring TS capacity from the transformation pool) need to be able to construct their TSs in efficient and cost effective ways. When determining the most economic size and number of feeder positions, consideration should be given first to future load growth within the distributor's supply area and perhaps to future load growth in neighbouring distributors' service areas. Distributors also may wish to consider the possibility of transferring some load from an existing TSs to new TSs in order to achieve greater efficiency of supply. In doing so, due consideration must be given to overall supply efficiency in the area and to the economic impact of potential stranding of assets. Proposals for the construction of new TS capacity may need to reviewed and approved by the OEB in order to obtain a "leave to construct" in accordance with Section 92 of the Act.

In recognition of the fact that TSs generally were planned and built to serve the needs of multiple distributors, the owners of these stations and the distributors they serve should be protected to some degree from potential stranding. Stranding might result if one or more of the original distributors being supplied choose an alternative supply arrangement in the future.

The issue was raised regarding the decommissioning of TSs or Distribution Stations, where the owners of the stations had supply commitments to other distributors. Concern was expressed that one distributor could unfairly disadvantage another distributor by discontinuing the supply arrangements or changing the supply arrangements to a long supply route with increased losses for the second distributor. However, section 86 of the *Ontario Energy Board Act, 1998* suggests that a transmitter or distributor must get approval from the Board to sell or dispose a transmission or distribution system that is necessary in serving the public.

Recommendation

1. Distributors should continue to be able to own and operate their existing and future TS facilities and to contract some of their TS capacity to other distributors.

2. Supply commitments for existing TS capacity should (if not already) be documented through suitable commercial and Operating Agreements.

3. Construction of a new TS (by a Transmission Company or a distributor) should require due consideration to overall supply efficiency in the area, notification to all potentially impacted parties and a leave to construct issued by the OEB, in accordance with Section 92 of the *Ontario Energy Board Act, 1998*.

4. Proposed sale or decommissioning of an existing TS that supplies more than one distributor should require notification to all interested parties and approval by the Board per section 86 of the *Ontario Energy Board Act, 1998*.

5. Sale of existing TSs should be done on the basis of requiring a willing seller and a willing buyer.

6. The following recommendations should be forwarded to the OEB Transmission System Code Task Group:

    - Transmission Companies should continue to be required to manage a transformation pool for existing and future TS requirements within their supply territories. This includes the allocation of existing TS capacity (and associated feeder positions) as well as the planning, design, construction and operation of new TSs. This would not preclude distributors from planning and managing their own TS capacity requirements.

    - If TSs are sold to distributors, established commitments of supply also should be transferred.

Voter Summary

Unanimous.

Dissenting Opinions

None.

7.8 MANAGEMENT OF FEEDERS WITH MULTIPLE OWNERSHIP

[FINALIZED: FEBRUARY 28, 2000]

Issue Statement

Effective management of a substation (DS or TS) feeder requires knowledge of the connected loads and feeder characteristics over the entire feeder length. For example, loads connected on one part of the feeder can affect voltage levels on other upstream parts of the feeder. Similarly, conductor size used on one part of the feeder can affect voltage and short circuit levels on other downstream parts of the feeder. If a single distributor owns the entire feeder, the feeder can be managed easily. When a feeder runs through multiple distributors' supply areas, the feeder generally is sectioned into parts and a distributor owns the sections that run through its service area. Multiple ownership can make effective feeder planning and management difficult. The issues are:

How should the problems associated with the planning and management of feeders with multiple ownership be addressed, and what should be the preferred way of dealing with these problems?

Options

1. Do not allow feeders with multiple ownership. Each feeder would be owned in its entirety by only one party whether or not it goes through more than one distributor's service area.

2. Designate one of the owners (probably the most upstream section owner) with responsibility and accountability for managing the entire feeder and for specifying requirements for overcurrent protection devices, voltage regulators, capacitors and other such equipment for the entire feeder.

3. Make each owner responsible for the management of its own section of the feeder.

Background Information

Due to the large number of licensed distributors in the Province of Ontario, there are a number of existing and many potential future situations where a feeder has or could have multiple ownership by more than one distributor. The overall performance of a feeder is influenced by the feeder characteristics (e.g., conductor size) and the equipment and loads connected over the entire length of the feeder. For this reason, the management of feeders with multiple ownership requires special attention.

In the case of feeders emanating from TSs owned by OHSC, the main feeder breaker generally is owned by OHSC, adding a potential additional owner in the feeder supply path. Proper setting of

the protections for these breakers also requires knowledge of the connected loads and feeder characteristics over the entire length of the feeder. As the owner of the breaker, OHSC has responsibility for implementing proper settings and must be involved in the overall planning and management of the feeder.

Implementation Issues

- Sharing of information between distributors and transmitters.
- Development of commercial contracts and operating agreements.
- Allocation of costs and cost sharing principles.
- Equipment compatibility.

Summary of Discussion

Option 1 would inhibit a distributor's operations within its service territory and is in conflict with recommendations in other SORs that encouraged distributors to own all lines within their service territory.

Option 2 could provide for good feeder management but would require the full co-operation of all parties in providing the required technical and loading information and in installing specified equipment on their portion of the feeder. It would also place undue responsibility and accountability on one distributor. There would be high likelihood of conflict between distributors. distributors might agree, for example, that a regulator is required on the feeder but may have difficulty in resolving where that regulator should be placed and who should pay for it.

Option 3 would generally require the installation of protection devices, regulators and bulk meters at the boundaries and Operating Agreements between distributors with clauses specifying technical information exchange requirements

Protection, voltage regulation and phase balancing are the three main parameters of a feeder that must be addressed by this SOR. In addition, power quality aspects such as voltage flicker, unbalance, harmonics, also must be addressed.

Recommendation

Option 3 is recommended. Each distributor should manage its own portion of the feeder. Distributors must ensure that their portion of the feeder has proper fault protection and voltage within proper limits. This would generally require the owner of each section of the feeder to provide for suitable overcurrent protection devices and voltage regulators, as appropriate, at the upstream boundary and suitable metering (if not already available for settlement purposes) at the

downstream boundary. It would also require operating agreements including, among other things, clauses requiring each section owner to:

- provide downstream owners with fault current information and protection settings of upstream protective devices.
- provide upstream owners with load forecasting information.
- maintain phase balance within generally acceptable industry standards.
- ensure generally acceptable industry standards pertaining to power quality and voltage levels are adhered to on their portion of the feeder.

The owner of the feeder breaker would be responsible for maintaining appropriate relay settings for overall feeder protection and each distributor would be responsible to provide the required information to accomplish this. This would generally include feeder characteristics and loading information.

Voter Summary

Unanimous.

Dissenting Opinions

None.

7.9 JOINT USE AGREEMENTS

[FINALIZED: JANUARY 25, 2000]

Issue Statement

One of the stated purposes of the *Electricity Act, 1998* is "to provide economic efficiency in the generation, transmission and distribution of electricity." One of the economic efficiencies employed by utilities has been joint use of assets such as pole lines with other power and telecommunication utilities. Typical reasons for joint use agreements included economic, environmental and aesthetic benefits. The issue is:

> Should the Distribution System Code (DSC)include requirements regarding Joint Use Agreements between a distributor and other utilities?

Options

1. The DSC should not include any requirements regarding Joint Use Agreements between a distributor and other utilities.

2. The DSC should make reference to existing Joint Use Agreements.

3. The DSC should establish detailed requirements for Joint Use Agreements.

Background Information

Historically, utilities have cooperated in the joint use of attachments to assets such as poles. The arrangements were and still are quite varied, but generally were under the premise that Utility "A" paid a "rent" or attachment fee that cost less than building their own infrastructure. Utility "B" built an infrastructure that was more than their needs, and the cost was offset by the "rent" or attachment fee as well as payment for costs to make the infrastructure ready to accommodate the attachment. The combinations included Ontario Hydro facilities attached to municipal electric utility (MEU) poles; MEU facilities attached to Ontario Hydro poles; Bell Canada facilities attached to MEU or Ontario Hydro poles; MEU or Ontario Hydro facilities attached to Bell Canada poles; and Cable TV facilities attached to MEU, Ontario Hydro or Bell Canada poles. More recently, there has been joint use attachments between utilities and a myriad of independent telephone and telecommunication companies.

This arrangement between utilities for economic efficiency, has progressed further where most MEU's and Ontario Hydro have been jointly planning and installing new underground infrastructure for new residential subdivisions with Bell Canada and local Cable TV companies. Each party is able to share

the trenching and backfill costs, which results in lower costs to their customers.

In Volume Four of the MDC Final Report, section 6.2.2 specifically deals with Responsibility Between Multiple Distributors. There is no discussion by the RTP presented with regards to Joint Use Agreements.

Summary of Discussion

Joint Use Agreements have been in place for more than fifty with ***many*** distributors and have been updated on a formal basis for more than thirty years. The MEA have a whole binder that is part of the MEA Guide to Municipal Standard Construction that is a compilation of Agreements that have been developed in consultation with companies such as Ontario Hydro and Bell Canada and organizations such as the Ontario Cable Telecommunications Association (OCTA). The MEA, through a committee of MEA Staff and MEU staff have updated these agreements and the associated attachment fees through negotiations with these companies and organizations.

OHSC's legal department has similarly updated and maintained joint use agreements with MEUs, Bell Canada, OCTA, the Canadian Cable TeleCommunications Association (CCTA), independent Telcos and others. These documents are generally legal documents that are signed and sealed by authorized representatives of the respective companies.

Under Option 1, the DSC would remain silent on the issue of joint use agreements and leave them strictly to the business operations of the successor distribution companies. This option presumes that all distributors currently have valid joint use agreements and that the intent of creating joint use agreements will continue. The Retail Technical Panel did not discuss joint use agreements, however the RTP did recommend that distribution service territories be defined according to geographical boundaries and that each distributor be granted the exclusive right to provide service within that territory. Under the scenario of non-geographical boundaries and nonexclusive right to provide service, there may be some distributors that will closely examine their current joint use practices as current joint use agreements may be providing an advantage to their competitor.

Under Option 2, the DSC would include a reference to existing joint use agreements. The reference should acknowledge the usefulness of joint use agreements, to provide a means to service customers in an economic way that is also environmentally and aesthetically sensitive. Distributors should be allowed to continue to negotiate, business to business.

Under Option 3, the DSC would need to be very detailed in the description of Joint Use Agreements. This would require detailed models to be part of the DSC or in an appendix. It was felt that much work has been already done on model Joint Use Agreements and that distributors have many years of experience in administering these agreements with other distributors and other utilities. If the DSC were to prescribe Joint Use Agreements, then the DSC could result in putting undue restrictions on distributors in operating their companies and controlling the use of a distributor's assets. It was noted

that unique conditions exist in different areas across the province and these conditions are usually addressed in specific Joint Use Agreements. It is important that the DSC does not prescribe how and where joint use attachments are to be provided, as this will put the DSC in the position of prescribing engineering standards for construction. The ability to provide joint use space should be a business decision left to distributors, not something forced upon them by the DSC.

It was also pointed out, that joint use attachments are generally not required by a distributor for the distribution of electricity, however it is a means of more effectively using the assets of the distributor. Allowing join use attachments can reduce congestion on a road allowance as well.

It was felt that the use of Joint Use Agreements should continue to be a distributor?s right to make use of their assets in the best manner possible and that neither the DSC nor the interpretation of section 71 of the *Ontario Energy Board Act, 1998,* should take that ability away.

Recommendation

Option 2 is recommended. The concept of Joint Use Agreements should continue as a distributor?s right in the DSC without prescribing detailed contents of the joint use agreement. It is further recommended, that distributors be encouraged to have current, accurate Joint Use Agreements in place andtreat joint use parties fairly in accordance with the intent of the prevailing joint use agreement(s).

Voter Summary

Unanimous.

Dissenting Opinion

None.