

Clarification of Reporting Guidelines for Import/Export Transactions

Purpose

The purpose of this report is to clarify the existing reporting requirements set out by the National Energy Board (NEB) with respect to inter-jurisdictional trade between Ontario and those jurisdictions in the U.S. with which the IMO-controlled grid is directly interconnected - New York, Michigan and Minnesota. The report also describes current reporting practices and provides plausible reasons for data inconsistencies. It concludes with a set of recommendations on new reporting guidelines aimed at eliminating the potential for future data inconsistencies.

Background

One of the key recommendations of FERC's Wholesale Market Platform (WMP) is the elimination of multiple export fees (or rate pancaking: regional transactions that face two or more export charges). By eliminating rate pancaking, the FERC expects inter-regional trade to increase, as lower-cost generation would be able to reach higher-cost markets without having to face multiple export fees along the way. If FERC's goal is achieved, accurately reporting and tracking international trade will become even more important.

In response to FERC's recommendation to eliminate rate pancaking, the IMO recently investigated the potential for reciprocally waiving export fees between Ontario and New York. It was clear from this investigation, however, that there were significant discrepancies between the two data sources (IMO & NEB) used in the analysis (see Appendix). The discrepancies were so large that it called into question whether one could say with any confidence that Ontario was a net importer or net exporter with certain U.S. states over the last few years. It is clearly in the IMO's interest to rectify this situation by establishing clear and consistent reporting guidelines.

Current Reporting Requirements

Companies are required to report both electricity exports and imports to the National Energy Board (or NEB). The authority for this requirement is as follows:

- The National Energy Board Act and the National Energy Board Export and Import Reporting Regulations require companies to file monthly returns with the NEB regarding electricity exports.
- The Statistics Act allows Statistics Canada to collect data on electricity exports and imports.
- Subsection 12(1) of the Statistics Act allows Statistics Canada to enter into an agreement with a department such as the NEB for the sharing of information collected by either Statistics Canada or the department on behalf of both of them and for the subsequent tabulation or publication based on that information.
- In the interest of efficiency, the National Energy Board (NEB) and Statistics Canada entered into an agreement to jointly collect and share data.
- This agreement is called the "Memorandum of Understanding Concerning the Collection and Sharing of Information on Energy Statistics Between Statistics Canada and the National Energy Board."
- Under the terms of this agreement, the NEB collects monthly export and import data, and shares this information with Statistics Canada.
- All federal Statutes and Regulations can be viewed online at www.justice.gc.ca. A copy of the Memorandum of Understanding can be obtained by contacting the National Energy Board.

Most of the other reporting obligations that once resided with Ontario Hydro have now been transferred to the IMO. These include:

Permit EPE-22, Circulating Power and Energy

- enables the IMO to operate the IMO-administered markets in parallel with other jurisdictions in the U.S
- reporting obligation requires the IMO to report the total amount of unscheduled circulating power and energy that simultaneously returns to Ontario
- this report is submitted on a monthly basis (i.e., for the previous months activities)
- the standard reporting form is available from the NEB's Website

EPE-177, Emergency Exports

- enables the IMO to provide out of market emergency support to neighboring entities in the U.S. when a state of emergency is declared in those jurisdictions and commercial remedies cannot be brought to bear to rectify the situation in a timely manner (i.e., such as shared activation of reserves). It also enables the IMO to fulfil various Market Rules requirements and certain terms and conditions in our Interconnection Agreements.
- this requires the IMO to report the total amount of emergency energy and power transferred to a U.S. jurisdiction.
- this report is submitted on a monthly basis (i.e., for the previous months activities)
- the standard reporting form is available from the NEB's Website

Reporting Issues

In assessing the merits of eliminating export fees between Ontario and New York, the following three factors have been identified as possible sources for data inconsistencies (see Appendix for inconsistency details):

a) Multi-Party Reporting Obligations

Before the breakup of Ontario Hydro, reporting obligations for import/export data largely fell with this single entity. This greatly simplified the reporting process and reduced the potential for reporting errors. In the intervening years - after the breakup but before market opening - the reporting requirements were transferred to the successor companies to Ontario Hydro. According to IMO staff, the obligations for reporting export (including emergency exports) and import information was transferred to Ontario Power Generation and the obligations for reporting circulating power was transferred to the IMO.

Post market opening, the responsibility for reporting exports transferred from OPG to exporters - who must obtain an export license from the NEB – and the obligation for reporting emergency exports was transferred to the IMO.

While the NEB has recently clarified reporting requirements for imports, at the time of market opening the responsibility for reporting imports was not well understood. This problem was mitigated by the fact that some exporters voluntarily provided import information to the NEB. But not all exporters are importers. For example, while the

NEB's *Electricity Exports and Imports* report for January 2003 lists 10 importers transacting imports into Ontario, the IMO has 18 importers on record transacting in that month.

b) Hourly Net vs. Gross Data

Having two different approaches to calculate import/export data can also lead to reporting inconsistencies. The IMO currently reports data for imports and exports on the basis of two different approaches. The first approach, called “gross,” simply adds up the hourly scheduled import transactions and export transactions for each month, resulting in gross imports and gross exports. The “hourly net” approach¹, however, takes the net figure for each hour by first subtracting exports from imports to achieve either a net import (if imports exceed exports) or a net export (if exports exceed imports) for that hour. Summing all the net exports and then all the net imports for every hour of the month produces the total net exports and total net imports for the month. While the first approach yields higher overall numbers, subtracting the totals for both approaches from each other yields the same result². This is illustrated by the following example (the month is assumed to have 4 hours in it):

“Gross” Approach	Exports (MW)	Imports (MW)	Net exporter for month
Hr 1	500	-200	
Hr 2	600	-700	
Hr 3	400	-600	
Hr 4	700	-100	
Total	2200	-1600	600

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 Gross Exports Gross Imports

“Net” Approach	Hr 1	Hr 2	Hr 3	Hr 4	Net Exports	Net Imports	Net exporter for month
Exports (MW)	500	600	400	700			
Imports (MW)	-200	-700	-600	-100			
Total	300	-100	-200	600	900	-300	600

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 Net Exports Net Imports Net Exports

¹ This approach is used in the calculation of Inadvertent Power Flows. In this calculation, the actual metered flow is compared to the net scheduled amount for each control area. The difference between the metered flow and the scheduled amount is the Inadvertent.

² That's why both approaches yield the same result for inadvertent energy.

c) Wheel-throughs and Spot Market Sales

While the two sources for data inconsistencies listed above can be easily addressed, wheel-throughs - the movement of electricity from one system to another over transmission facilities of intervening systems – and spot market sales are much more problematic issues. That's because the NEB currently provides a level of detail that goes beyond the IMO's reporting capabilities. While the NEB identifies the "source" and "destination" of both import and export transactions, the IMO's data relates to export/import transactions that were scheduled over a specific interconnection between Ontario and the three U.S. states, New York, Michigan and Minnesota.

As a result, the IMO approach may overstate the amount of imports from and exports to New York, Michigan or Minnesota and may conversely understate the amount of imports from and exports to states other than these three neighbouring states.

For example, if the source of an import is assumed to be Pennsylvania and its ultimate destination is assumed to be Ontario but it passes through New York, the NEB will report this as an import into Ontario from Pennsylvania. The IMO, however, will report it as an import from New York. Conversely, if the source of an export is assumed to be Ontario and its ultimate destination is assumed to be Massachusetts but it passes through New York, the NEB will report this as an export from Ontario to Massachusetts. The IMO, however, will report it as an export from Ontario to New York. In an alternative scenario, if the source of an import is assumed to be Illinois and its ultimate destination is Manitoba but it passes through Michigan and then Ontario, the NEB will report it as an Illinois – Manitoba import. The IMO will instead report it as a Michigan – Ontario import.

The case of spot market sales is quite similar. For example, a generator or exporter in Ontario may wish to sell into a spot market (e.g., PJM or MISO in future) with multiple states in its footprint. The NEB's "source" and "destination" reporting requirement is impractical as the destination can be one of 5 or 15 states!

Recommendations

- a) **Multi-Party Reporting Obligations** – the IMO will post a bulletin on its website clarifying the import/export reporting obligations to the NEB of the various market participants. The IMO will provide the NEB with import data from market opening onward and will report on imports broken down by market participant to ensure data consistency.
- b) **Net vs. gross** - While the "net" approach is appropriate for calculating inadvertent power flows, the "gross" approach is more appropriate in assessing the merits of eliminating export fees between Ontario and its neighbouring jurisdictions. That's because it contains transaction information that is consistent with what is to be reported to the NEB. With this data, the extent of lost revenues (should we decide to eliminate the export fees that apply to these transactions) can be more readily determined. The IMO must, therefore, ensure that import information provided to the NEB will be provided on a "gross" basis.

- c) **Wheel-throughs and spot market sales** – The NEB’s approach to reporting import/export data should be updated to reflect the recent restructuring of the electricity industry and the resulting changes to reporting obligations. The NEB must choose between having the necessary detail to report on trade between various states and provinces and having enough confidence in the accuracy of overall trade between the U.S. and Canada. That’s because wheel-throughs and spot market sales have made it difficult to isolate electricity trade between an individual province and an individual state. The most reliable data is that collected by the IMO (and its counterparts in the other provinces) who collect metered data for import/export transactions that are scheduled over the interconnection facilities with the United States. While the NEB will lose its ability to speak to state-to-province trade, it will be in a better position to speak to trade between Canada and the United States.

APPENDIX

Data

NEB vs. IMO (imports/exports NY, MI, MN, other) data.