

## **Comments of the Manitoba Hydro-Electric Board (Manitoba Hydro) on the**

### ***Congestion Management Settlement Credits (CMSC) In the IMO-Administered Electricity Market* discussion paper**

**Issued on February 23, 2003 by the Market Surveillance Panel**

Manitoba Hydro submits these comments in response to the *Congestion Management Settlement Credits (CMSC) In the IMO-Administered Electricity Market* discussion paper (the Paper) issued on February 23, 2003. Through its interconnections, Manitoba Hydro is extensively involved in the import and export of electrical energy to and from wholesale customers in other Canadian provinces, including Ontario, and the United States. Manitoba Hydro's peak exports exceed 2000 MW, and for the fiscal year ended March 31, 2003, over 40% of Manitoba Hydro's electricity revenue was from sales outside of the province of Manitoba. Manitoba Hydro supplies 200 MW of firm energy under a long term contract into the Ontario market.

Manitoba Hydro presently has the capacity to supply additional cost effective and renewable hydro electricity into the Ontario market, but is limited in the amount it can deliver by the existing transmission system within Ontario, particularly the East-West transfer capability. In the long run, additional hydro capacity will be built in Manitoba to serve the Ontario market given suitable price signals and market rules to encourage such an investment.

#### 1. Constrained Generation is an Underutilized Resource

Most constrained generation is not a "fictional resource" (Paper @p.12) of the Paper), but is real generation that is in economic merit, but typically can not run due to insufficient transmission. The market can be made efficient by ensuring that supply from these low cost generators reaches the market. This has the benefit to all consumers of increasing supply and in turn lowering the market clearing price.

The potential benefit to the Ontario market in relieving the transmission constraints is significant. As indicated in the Paper, the wholesale price in Ontario would be higher without the constrained generation. However, the Paper did not take to completion the analysis of the proposed changes to CMSC payments. Briefly, the energy costs to energy consumers under various scenarios studied by the MAU largely exceed the benefits of eliminating the constrained-off CMSC payments to generators and imports.

The simulated energy prices increases, when applied to the market demand over the study period, results in additional total energy costs as follows: \$691 million (scenario 1), \$429 million (scenario 2), and \$135 million (scenario 3). These far exceed the \$63 million in CMSC payments that the MSP seeks to avoid. Even with 50-70% mitigation, the consumer is unlikely to see any savings as the costs from increased market prices exceed the savings resulting from the elimination of the CMSC.

The simulation completed for the Paper indicate the constrained off payments in the May-Dec 2002 period may have reduced the wholesale market price by \$1.32 to \$ 6.73 / MWh on average. On a yearly basis, and even when subjected to 70% mitigation, the savings from constrained off payments amount to an estimated \$60 million to \$300 million per year. This level of benefit to the Ontario market would support a transmission investment on the order of \$600 million to \$ 3 billion. Certainly the higher end of this range should be enough to eliminate the major transmission constraints within Ontario.

An added benefit of relieving transmission congestion is that it may allow additional renewable resources, such as hydro, to reach the Ontario market, displacing thermal air emissions. Manitoba Hydro estimates that the 200 MW of supply it already provides into the Ontario market displaces up to 500,000 tonnes of carbon dioxide emissions (CO<sub>2</sub>) in Ontario each year.

The Paper discusses “the existence of additional offers of energy at low or negative prices” (Paper @p.12). If there is a problem with the constrained generators within Ontario offering in energy at inappropriately low or negative prices, then that problem should be corrected through the market monitor. Another solution is not to pay CMSC on negative offers or the negative portion of any offer. Indeed, as the HOEP rarely if ever falls below \$15/ MWh, not paying CMSC on the portion of any offer below \$15 should help eliminate the existence of such inappropriately low offers.

## 2. Transmission Investment is Needed

Manitoba Hydro fully concurs with the statement “In the current state of market design, it is not clear than an appropriate regulatory framework exists for this type of generator and customer driven investment” (Paper @ p.18). However, Manitoba Hydro believes that it is not constrained off payments that are interfering with appropriate signaling in the market, but rather the general market rules and regulatory framework that do not adequately provide for construction of transmission to relieve constraints.

Minor improvements in the East- West transfer capability to relieve congestion appear to be possible at relatively low incremental costs through upgraded reactive compensation facilities such as at Wawa. However, the regulatory process for such an improvement is less than clear and does not serve to

encourage such investment. The congestion assessment in the IMO's 10 Year Outlook (released March 31, 2003) indicates "the EWTE frequently constrains off lower cost generation in the Northwest zone that would otherwise flow to load points in South Ontario." Further "Existing congestion is likely to continue on the East – West Transfer East (EWTE) transmission interface." The benefit of increased supply from lower cost generation in the Northwest Zone (including supply from Manitoba) could far outweigh the costs of the additional transmission.

### 3. CMSC as Signals for Transmission Investment

Manitoba Hydro understands the relationship between system reliability and confidentiality of producer costs (and confidentiality of related information, including CMSC payments). We also realize that detailed regional offer curves are required to determine which potential transmission enhancements have the greatest value to the power market. We believe that either the IMO should provide detailed market analysis for transmission providers in support of transmission planning, or the IMO should execute confidentiality agreements with transmission providers, granting transmitters access to the detailed market information which will enable transmitters to perform this analysis themselves. For greater certainty, due to the significant harm that could befall market participants if a breach of confidence was to occur, we prefer that the IMO maintain control of confidential information, including CMSC payments, and that the IMO perform market studies, on demand, for transmission providers, with sufficient care to protect and obscure individual generator or market participant offer curves.

### 4. Locational Marginal Pricing is not a Solution to All Market Problems

The Ontario market may eventually move from the current uniform Ontario pricing to locational marginal pricing (LMP). LMP is often touted as a panacea to many electricity market problems. Indeed, in the US, FERC has adopted it as part of their proposed Standard Market Design (SMD). However, LMP does have some significant shortcomings. In particular:

- LMP is very complex: There could be hundreds if not thousands of price nodes in Ontario, each with its five minute price locational price. Financial transmission rights (FTRs) are required. The Ontario market rules are already complex with over 1000 pages of market rules. LMP will only add to that complexity and add significant costs for market participants. Small players will not have the resources to stay on top of the market/ market rules and compete in such an environment. This could ultimately lead to more concentration of generation ownership and less competition.
- Initial Allocation of FTRs is very important but very difficult: The initial allocation of FTRs effectively is allocating the future financial equivalent

to the historic physical transmission usage. This is very difficult to do and undoubtedly will tend to advantage some generators and consumers and disadvantage other generators and consumers. The value of generation assets in constrained areas will be significantly affected by FTR allocations. Do new generators or customers get a share of already allocated FTRs?

- LMP provides inadequate mechanisms to incent transmission construction: If a difference in LMPs exist between two nodes due to a transmission constraint, the theory is that a merchant transmission builder should build transmission to solve the constraint, and would be awarded FTRs for doing so. However, once the new transmission is built, the locational prices across the constraint will equalize and the FTRs will now be valueless. Hence the merchant receives no compensation for solving the constraint.

#### 5. Maintaining Critical Facilities in the Marketplace

Manitoba Hydro recognizes that some generation facilities are critical to a particular geographic area. The cited example is the fossil plants in northwest Ontario. These fossil plants are an example of decisions that were made by Ontario Hydro to substitute local generation for transmission, that being efficient for the province as a whole at the time. The current problem (Paper @p. 13) is that these fossil plants “are typically constrained off because of transmission limits in the East-West tie and which, over the period reviewed in this document, received a significant share of the total constrained off payments to generators and importers”.

Manitoba Hydro concurs that the fossil plants are required in the northwest region to maintain a reliable system, and that constrained off payments are not the most effective way to compensate the facilities. Further, it does not appear logical that allowing the northwest fossil facilities to exercise their local market power would be in the best overall interest of the Ontario consumer. In a year these northwest fossil facilities are required to operate a significant amount of the time, the cost to the Ontario consumer of this exercise of local market power could be much greater than their recent share of constrained off payments.

A much better alternative is a reliability must run contract (RMR). This would ensure the energy is available if and when needed, and would be offered into the market at marginal cost – both in the interest of the Ontario customers.

Manitoba Hydro respectfully submits these comments for the consideration of the Market Surveillance Panel.