

IESO Market Pricing Working Group

Issue # 40, Locational pricing for Intertie Transactions

Comments on behalf of Sithe Global & Cardinal Power

9th September, 2008.

1, Introduction

The comments are submitted as follow-up to the Market Pricing Working Group meeting on 19th August, and in response to the presentation materials provided for that meeting.

2, Prioritization

Recent market evolution activity on major initiatives has been constrained by lack of IESO resources. The IESO indicated at the recent SAC that its 2009 business plan envisages continued constraints on the resources that will be allocated to market evolution activity, and consequent constraint on the work that can be done. Prioritization of effort is therefore essential.

Given the considerable remaining complexities requiring to be resolved, and the limited and questionable benefit, we recommend that this issue be reduced to low priority and all work put on hold until we are assured that resources are available to address such low priority issues.

3, Areas of concern

3.1, *Principle*

The present pricing arrangement seems to reflect a reasonable and generally non-discriminatory arrangement to address intertie congestion, recognising the restrictions imposed by hourly scheduling requirements. The main pricing discrimination is in the inequity between imports and exports with respect to pricing guarantees; the import offer guarantee was put in place in response to reliability concerns in the context of hourly scheduling in advance of real time price determination.

The proposal to settle import and export transactions on locational prices raises concerns of discrimination for economic as opposed to reliability purposes. It therefore has the potential further to undermine the credibility of the Ontario market construct. We therefore do not support it in principle.

3.2, Root cause

MSP concerns have focussed on the inefficiency of export sales at HOEP that must be satisfied by generation with a cost higher than HOEP. The inefficiency might better be resolved by addressing more fundamental concerns with an HOEP methodology that results in prices systematically lower than marginal costs.

3.3, Price determination

- a) Economics and intertie bid/offer incentives.

The economic impairment of uniform pricing arises in the separation of price from quantity (or in the specific electricity market context, from schedule/dispatch). The present temporal separation of export scheduling in pre-dispatch from export pricing in real time distorts significantly the framework of incentives for economic bid pricing. Economic optimisation requires that this be addressed, possibly by the use of pre-dispatch price Intertie Zone shadow price as the final price for settlement, or by the adoption of export guarantees equivalent to the IOG. This is independent of the present proposal, but it seems hard to understand how the present proposal can achieve material economic benefits if this is not addressed at the same time.

- b) Multiple lines

Each of the major intertie zones comprises multiple intertie lines; in each case these are presently subject to consistent market treatment in both Ontario and the other jurisdiction as a single intertie. The ICP is determined as the difference between the Intertie Zone price and the price applicable at the adjacent points, being today the uniform price determined in the market (unconstrained) pre-dispatch. The contemplated future ICP would presumably be based on the difference between the Intertie Zone price and the shadow price applicable at the adjacent points, being the locational shadow price in pre-dispatch. Given the large separation of the two NY intertie locations, this would presumably require separation into two separate interties. Would this enhance or detract from the efficiency of transactions and the intertie flow confidence limits?

- c) Shadow price calculation

The present shadow price calculation was not formulated as a determinant of price, and has never been tested in this way. Indeed the 2004 discussion of using Multi-Interval Optimization (MIO) in the market schedule stalled due to complexity, uncertainty and limitations on IESO market evolution resources. If shadow prices were to be used for any settlement, the detail of the real time shadow price calculation would require to be revisited. While this significant effort would be warranted in the context of a generic change in the market settlement, it seems out of proportion in the present context. But the potential for the present proposal to embed precedents for any more general change would require that this significant effort be undertaken in the context of this proposal.

3.4, CMSC, NEMSC and other uplifts

a) Exemptions

Locational pricing incorporates impacts of congestion and transmission losses. Export transactions settled on a locational basis would presumably be exempt from those elements of hourly uplift. This should be confirmed. In making this exemption, we should address the wider question of whether any of the hourly or monthly uplift charges should properly be applicable to exports.

b) Credit for over-collection of losses and congestion

The penalty factors used to account for loss impacts in the scheduling and dispatch of the system are understood to reflect estimated marginal losses in the system. Marginal loss factors are higher than average loss factors. In a system using such marginal loss factors to establish locational prices, the total of receipts from load systematically exceeds the total of disbursements to generators¹. In a system-wide application of LMP, this creates a negative uplift charge. Equivalent effects arise with respect to congestion settlement amounts. In the proposed application of locational pricing only to intertie transactions, these effects will be lost within the general NEMSC. It is therefore appropriate, in recognition of cost causation principles and recognition of economic impact, to create an explicit loss and congestion over-collection credit applicable to export transactions paying a locational price (over and above exemption from CMSC & NEMSC uplifts).

4, Conclusions

Overall, we have significant concerns over the concept, the complexity, the required development effort, and the materiality of benefits that might flow from the proposal to price Intertie Transactions to recognise locational impacts within Ontario as well as at the interties themselves. We do not support the proposal. We do not support further work until the IESO can confirm availability of market evolution resources to support work on low priority issues.

¹ Consider for example a simplified system of one generator @ 100 MW priced at \$ 100/MWh and one load. Marginal losses between the two are 10%, so the corresponding load LMP is \$ 110/MWh. Average losses are a lot less than the marginal value, say 5%, so the load can use 95 MW and the system is in physical balance. Under LMP, the SO receives 95 MW x \$ 110 = \$ 10,450, and pays 100 MW x \$ 100 = \$ 10,000. It makes a net gain of \$ 450 on the transaction, which is available for distribution.