

Distribution of Congestion Residuals to Loads:

Comment on the IESO HLD 27 September 2018

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The IESO's 20 September 2018 slides on Congestion Rents and Loss Residual Zonal Disbursement Methodology presented a revised decision and invited comments from MRWG members. Further details were presented in the 27 September HLD slides. The Market Surveillance Panel (Panel) appreciates the opportunity to submit the following comments.

The principles guiding Market Renewal and the Market Renewal Working Group include 'delivering efficient outcomes to reduce system costs' and 'sending clear efficient price signals.' Efficiency calls for prices that reflect market conditions. Congestion between zones can give rise to zonal price differences, so efficiency calls for zonal pricing for generators and loads.

In February the Panel expressed concern that the distribution of residuals to loads would tend to distort prices and thus impair market efficiency to some extent, suggesting that such distribution should be transitional only. Since that time we have carefully considered this issue and examined additional analysis that the IESO has presented to the MRWG and submissions by stakeholders.

We accept that the distribution of residuals to loads on a continuing basis is consistent with the Market Renewal mission and principles, subject to minimizing the resulting price distortion. We believe that a volumetric distribution to all zones and loads in equal amounts per mWh would be the least distorting method of distribution.

The IESO's proposed Relative Zonal distribution (September 20, 2018, Sept. 27, 2018 pp 48-52) would significantly reduce inter-zonal price differences because residuals would flow only to zones with prices greater than the uniform supplier-weighted price across the Province, and in proportion to the over-expenditure in those zones. The IESO analysis of four years of historical data shows this distribution moving prices in all but the northern zones close to the average, reducing inter-zonal price differences from \$2-3/mWh to generally less than \$1 except in the north. We prefer the preservation of inter-zonal price differences. However, the efficiency losses associated with price changes of a dollar or two may be an acceptable trade-off for protecting loads from the uncertainty of zonal pricing so long as larger differences, currently north-south differences, are preserved, since these are most likely to produce a long-run response by loads. We support quarterly calculation rather than monthly calculation because this reduces the distortion.

Similarly, we expect that peak hourly prices in high-price zones might be significantly reduced for some loads, since the proposed within-zone distribution is again only to loads whose price exceeds what their price would have been under the uniform price. While the residual would be higher in \$/mWh for some individual loads in peak hours, the peak prices in a year are usually in the hundreds of dollars per mWh, so the proportional reduction in price should leave

substantial peaks in place. It is these peak prices that are most likely to induce desirable short-run behavioural responses by some loads.

It has been suggested that zonal load pricing even with the distribution of residuals to loads is unacceptable because prices in some zones will be higher than they would be under uniform pricing. This amounts to a rejection of efficient pricing, a position we cannot support.

While in many quarters the average price differences among most zones may be small, we cannot be confident that some loads will not respond to true price signals some of the time. In a time of rapid technological change it seems unrealistic to argue that large loads in general will not respond to small differences in price. The benefit-cost analysis of a conservation project may be tipped in the positive direction by small price differences. Abandonment of zonal pricing for loads abandons the opportunity to encourage responses that are beneficial for the load and the Province. We could not support abandoning these long-run price signals.

Much of the average price difference between zones arises from short-run events such as transmission outages causing substantial short-run price excursions. We expect that some loads will be able to respond to such price events. Moreover the experience of the last decade is one of new technology enabling all sorts of demand response that was not feasible or economic previously. Monitoring and management technology continues to improve in capability and to fall in cost. Zonal pricing will increase the ability and desire of loads to respond to such events, and of other service providers to respond to such events in ways that will be profitable for them and will reduce the severity of the price event. We could not support abandoning these short-run zonal price signals.

The IESO analysis shows that after the Relative Zonal distribution described in the 27 September HLD the size of any zone's price excess over a uniform price would be extremely small. With respect, we have trouble with the argument that somewhat larger inter-zonal price differences would not lead to any behavioural response by loads, yet these small prices for a zone above the average would be unacceptable. Abandoning zonal pricing would raise prices to northern loads to give a small benefit to southern loads.

The MRWG and other stakeholders have come together in a belief that there will be substantial overall benefits from the Market Renewal design. The IESO has demonstrated that loads in all zones will be better off with the changes proposed in the energy stream. But we cannot get there if we abandon an important pricing element because a less efficient alternative, uniform pricing, would benefit some stakeholders at the expense of others.

The actual effects of the HLD for distribution of residuals to loads will depend on the detailed design. The actual price patterns arising from zonal pricing will only be known with certainty when we have a few years of experience with the system. Based on the available information we are prepared to accept the IESO's Relative Zonal distribution decision as achieving an acceptable balance between efficiency, reducing costs and fairness. However we will watch the detailed design and the experience with the residual distribution when the system goes live and may have further comments if it appears to excessively dampen efficient pricing incentives.