

July 17, 2019

Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street, 27th floor
Toronto, ON M4P 1E4

Dear Ms. Walli:

Re: Staff Research Paper: Examination of Alternative Price Designs for the Recovery of Global Adjustment Costs from Class B Consumers in Ontario
Board File #: EB-2016-0201

The OEB is currently evaluating options for collecting Global Adjustment (GA) costs through electricity prices paid by Class B consumers. As part of the process, the OEB released a staff research paper entitled “Examination of Alternative Price Designs for the Recovery of Global Adjustment Costs from Class B Consumers in Ontario”. Strategic Policy Economics would like to offer the following comments on behalf of the Canadian Manufacturers and Exporters (CME).

CME commends the OEB for developing six different pricing variants and assessing the impacts each would have on two criteria: reducing system capacity/energy costs; and, providing customer with better electricity value. It appears that the OEB has considered a broad range of pricing mechanisms that have varying benefits to the system or to customers.

Two of the variants identified as having a high net benefit by the OEB are of interest to CME:

- The demand-shaped pricing variant which offers the greatest system cost reduction but a negative consumer benefit because of higher electricity prices during peak demand times; and
- The supply-shaped pricing variant, which provides a consumer benefit with negligible impact on total system costs.

CME generally agrees with the principles underpinning these pricing variants as they reflect the principle of cost causality: ensuring rate payers pay for the costs that they are accountable for. Of the proposed approaches, CME supports the OEB’s preferred solution of demand shaped pricing as a general rate setting mechanism.

However, none of the proposed approaches address the concerns of CME that manufacturers are suffering uncompetitive electricity rates when compared to Ontario's trading partners. To address the root cause of these problems, CME recommends that the OEB considers a special rate for manufacturing based on the cost of baseload power (nuclear and hydro). This recommendation stems from the principles of the supply-based pricing variant but recognizes that manufacturing specifically represents a stable, predictable and reliable user of Ontario's baseload power. It is the build up of demand from other consumers and rate payers that require use of other supplies in the system.

Demand-shaped Pricing Variant

The demand-shaped pricing variant establishes pricing in proportion to the demand of each hour: when demand is high, prices are high, and vice versa. CME is supportive of this pricing variant because it allocates costs to those who are responsible for them. Figure 51 of the staff report shows that residential customers are typically responsible for the peak load of the day, which is what causes the highest costs. Thus, this pricing variant could shift costs from manufacturing, whose peak is during the mid day, to residential customers whose peak demand is more coincident with system demand. This supports CME's notion that manufacturing does not contribute to peak hours and thus should not be looked to for the solution to the system peak demand cost problem. The features of this variant also align with the principles of the ICI program to reduce peak demand by those who cause it but by applying to everyone, at all times, in a fair and transparent manner.

One of the aspects of the demand-shaped pricing variant is the exponent parameter that determines the ratio of high and low prices. The exponent serves to concentrate the magnified higher prices more closely with periods of higher demand. Only two cases were tested with exponents equal to 2 and 6. Results suggest that higher exponents better align system needs with consumer incentives to reduce peak demand. The higher exponent case is shown in the OEB staff report to have a measurable impact on rates and system savings.

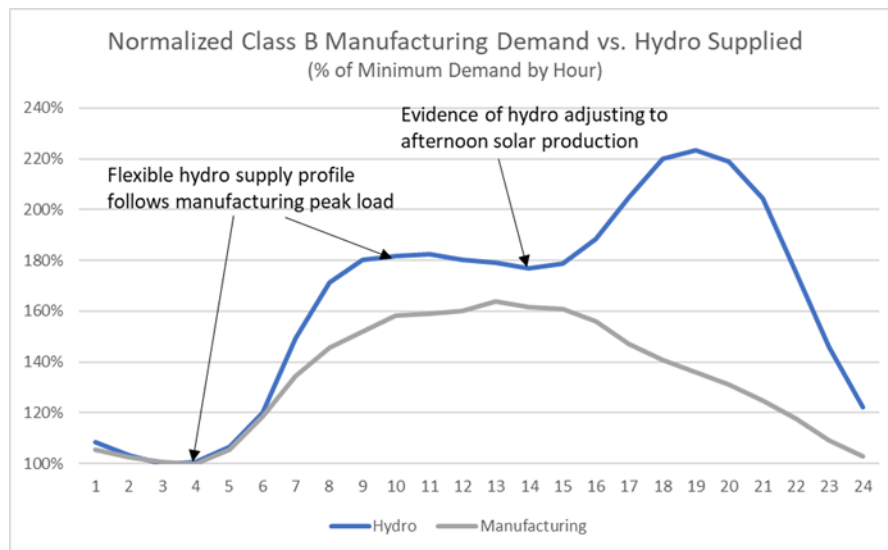
Supply-shaped pricing variant

The supply-shaped variant appears to follow the principle of cost causality by correlating electricity prices with the supply at the time of use. One of the OEB modelled cases was based only on correlating hydro, nuclear and gas asset output with demand. The OEB found this pricing variant to benefit consumers by delivering better economics during periods of greatest demand. However, it contributed little to reducing system cost. As such the OEB did not recommend its adoption. CME agrees with the OEB with regards to the scenario they modelled. However, CME is supportive of the principle of consumers paying for the supply they use.

Special Rate for Manufacturing

Manufacturing demand represents a stable, predictable and reliable load that provides a foundation for the amount of low cost nuclear and hydro assets in Ontario. Industrial class A customers' load profiles are relatively flat throughout the day and indeed fit the classic baseload demand profile. As such, the additional costs in the system that have accrued for other policy reasons or to account for more volatile daytime variations are not the result of Ontario's class A manufacturing consumers. Furthermore, while manufacturing class B customers have a load profile that is higher in the daytime to reflect the start and end of shifts, this profile is also stable and reliable. The demand profile of this predictable load is very well matched with Ontario's flexible hydro baseload supply as shown in Figure 1 that compares the average profile of the two as a percentage of the overnight low demand.

Figure 1 Class B Manufacturing and Hydro Power Capability

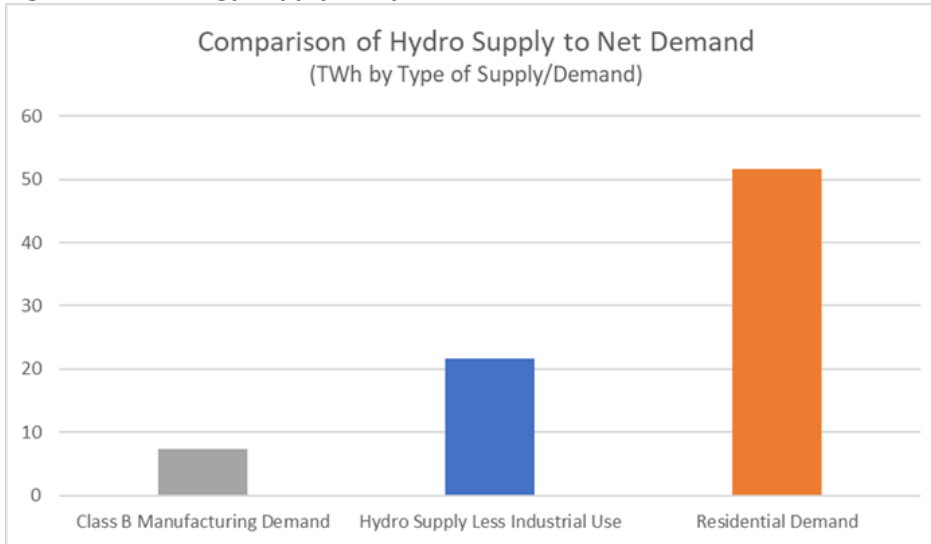


Source: IESO, OEB Class B Staff Report, Strategic Policy Economics Analysis

Note: The slight mid-day drop in the hydro supply is due to solar energy causing curtailment of the hydro.

Figure 2 below shows the annual net energy demand for Class B manufacturing and residential customers compared to the net hydro supply. Hydro is more than sufficient to supply manufacturing demand, but it is only a fraction of residential demand. Residential customers drive the need for additional and higher cost gas-fired generation to supply for intermediate and peak demand.

Figure 2 Net Energy Supply of Hydro and Class B Demand



Source: IESO, OEB Class B Staff Report, StatsCan, Strategic Policy Economics Analysis

Class B manufacturing demand estimated based on IESO demand data and jobs analysis of GDP/jobs. Hydro supply has been adjusted to assume that a portion is used for industrial demand.

Using the principles of cost causality, since manufacturing only uses nuclear and hydro power, a supply-based pricing variant based only on these should be applied to manufacturing. This approach would provide the much-needed lower cost electricity prices to allow manufacturing in Ontario to be competitive with other jurisdictions. A competitive playing field encourages investment in Ontario to grow the economy through added jobs and increased GDP.

Within the context of this manufacturing rate, the demand-shaped pricing variant could also be used to align system objectives of lowering cost with a customer incentive to reduce their costs during higher demand times. For manufacturing this can be done by applying the baseload rate to the total energy demand by manufacturing, then assigning costs to individual customers based on their demand relative to the peak demand. In this way, on average manufacturers would still be charged the baseload rates, but customers who can shift away from the peak can get a benefit.

Valuation of Customer Benefits

CME would like to offer one final comment. To assess the value of the various pricing options, the OEB has estimated the customer benefit. It has done so based effectively on the cost of electricity that the customers would avoid using during periods of higher prices. The avoidance is measured as a negative value and is always opposite to the value of any system cost savings. CME is skeptical that this formulation provides a useful measure for a quantitative comparison of the pricing options and hence should be used with caution as the OEB moves forward in its assessments of good rate design solutions for Class B consumers.

Recommendations:

In summary, with CME's focus on providing competitive and predictable low-cost electricity rates to sustain Ontario's manufacturing competitiveness, CME recommends:

1. **The OEB should pursue further the demand-shaped pricing variant for class B rates based on the principles of cost causality.** Allocating costs according to demand is appropriate as a general rate setting principle. However, a framework for designing the parameters in a transparent manner should be developed to support any next step consultations.
2. **The OEB should create a special rate for manufacturing in Ontario based on the cost of Ontario's nuclear and hydro supplies.** Maintaining manufacturing's electricity costs competitive with other jurisdictions contributes to the growth of Ontario's economy. The rate should be maintained in a stable and predictive manner that provides smooths and slow escalation as the refurbishment program completes.

CME would be pleased to discuss these recommendations with the OEB in more detail.

Yours very truly

Strategic Policy Economics

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