Ontario Electricity Update on the Global Adjustment Debacle

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Bruce Sharp breaks down the inequities and poor economics of the province's move to split Global Adjustment costs.

It's been quite a while since I've given an update on the Global Adjustment ("GA") cost transfer. Before I get to the numbers, I'd like to get those new to the GA up to speed and provide a bit of background.

Global Adjustment cost allocation

Ontario's GA is the electricity market mechanism for collecting and allocating above-market generation and conservation and demand management costs. Prior to 2011, there was a single GA class, with all consumers paying for GA costs based on a uniform, postage-stamp rate. Starting in 2011, we had two classes: A and B, with the classes' shares of GA costs determined in different ways. This program did not initially have a name but at some point was dubbed the Industrial Conservation Initiative ("ICI"). Class A now pays significantly less than they would have, had we still had one GA class. The result is a transfer of costs from Class A to Class B, i.e. a cost decrease for Class A's mostly large industrial customers and a cost increase for Class B — residential and most other Ontario electricity consumers.

In the beginning

When I first heard in mid-2010 of the idea of the two GA classes and quickly understood the cost transfer, the cost of the demand response and the price signal (I'll give you updates in a minute) involved, I thought it was a very bad idea that would not see the light of day. Silly me. It was pretty clear that two people – one then at the Independent Electricity System Operator ("IESO") and one then at the Ministry of Energy – had fallen under the spell of an industry association energy lobbyist.

Soon after, I attended a meeting at which Tom Chapman – then at the Ministry of Energy and now at the IESO – was giving more details on the plan. Exasperated with the seeming stupidity and inappropriateness of the plan, I suggested strongly to Chapman that the classes were being misnamed and that it'd be much more accurate to call them First Class and

Second Class. Chapman maintained a stiff upper lip and didn't appear to record my suggestion.

Seven and a half years later — and several billion dollars of GA costs transferred — here we are.

Class A expansion

In September 2016, it was announced that the overall average monthly demand threshold for Class A eligibility would be reduced from 3 MW to 1 MW. As well, baffling NAICS restrictions would be removed. A few months later, the threshold was reduced further to 500 kW, though participation in the 500 kW to 1 MW cohort would be restricted mainly to manufacturers and greenhouses.

The expansion took place July 1, 2017. We now have 6 months of data (July 2017 – December 2017) to compare against the same 6-month period in 2016. During the 2017 period, 10.8% of GA costs were transferred from Class A to B (relative to GA costs if there were no class distinction), versus a cost transfer of 8.2% in 2016. While there are other, minor factors at play, the expansion of Class A is responsible for the super-majority of the relative increase of 32% in the portion of costs transferred. In dollar terms, the GA Class A to B cost transfer for that 6-month period increased from $ 484 million to $ 644 million.

Latest 12-month cost transfer

For the 2017 calendar year, total GA costs were $11.85 billion. If there had still been a single GA class, the uniform rate would have been $ 86.8/MWh.
With the two classes, there was a cost transfer from Class A to B of about 1,190 million. Class A paid an average of $ 50.4/MWh or 42% less than they would have had we still had a single GA class. Class B — by virtue of its larger total energy consumption — paid $ 11.4/MWh or 13% more. For a residential consumer with losses-inclusive, annual consumption of 9 MWh, that represents an added cost (inclusive of GST) of $ 108/year.

Value / price signal

The economics of the ICI can be looked at in two ways: the value of the demand response provided by Class A customers and the price signal Class A customers see.

By either metric, they can be judged against alternative costs of demand response or generation. For demand response, a comparator is the IESO's most recent demand auction

price of $ 80,000 per MW per year. For generation, the lowest cost comparator is a simple cycle gas turbine plant with a liberal (i.e. high) cost of $ 175,000 per MW per year.

Value of demand response

Prior to the GA Class A threshold falling below 3 MW, the class was estimated to provide 1,000 MW of demand response. A generous estimate of the response provided by the 500 kW to 3 MW cohort is 100 MW, so let's say all of Class A provides a total of 1,100 MW of response. Taking the cost transfer from Class A to Class B of $ 1,190 million as the annual cost, the unit rate cost is $ 1,080,000 per MW per year. This compares quite unfavourably with the alternatives, with it ringing in at 13.5 times as much as conventional demand response and 6.2 times as much as generation.

The value for just the new Class A cohort is even worse. Making certain assumptions, the first, full-year Class A to B cost transfer for this cohort could be in the order of $ 330 million. Spreading that additional cost over the incremental demand response of only 100 MW, the unit rate cost is $ 3,300,000 per MW per year. This compares even worse with the alternatives, with it ringing in at 41 times as much as conventional demand response and 19 times as much as generation.

Price signal

With annual GA costs of $ 11.85 billion and the average provincial peak used for GA purposes running at approximately 23,000 MW, a Class A customer dropping 1 MW of net load (via a gross load reduction of 1 MW or behind-the-meter generation of 1 MW) will derive a benefit of about $ 515,000 – about 6.4 times as much as conventional demand response and 3 times as much as generation. This means there's great incentive for Class A to manage their load and in so doing, pursue measures that would not be economic from a system perspective.

What to do?

The demand response provided by Class A is ridiculously uneconomic and the price signal is grossly out of step with the alternatives. So attempting to justify its existence based on either economic metric is not at all valid.

Instead, the government should acknowledge that the Industrial Conservation Incentive is a pure industrial policy play. This happens in Germany, where the EEG (Erneuerbare Energien

Gesetz – the green equivalent of our GA) surcharge is paid for almost exclusively by residential and small business consumers.

The ICI should be completely transparent. All Class A participants should be identified. After stonewalling for a number of years, in mid-2016 the IESO finally began publishing the information required to calculate this cost transfer. The IESO should go further by calculating and posting the cost transfer for all to see.

Learning more

If you have questions about this and would like to know more, answers are available.
You may have questions about whether or not you should decide to be in the GA Class A or B or how and what the economics are of lowering your GA Class A costs.

For more information, please send me a Linkedin message or email me at bruce@brucesharpenergy.com.

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