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Ontario's Long Term Energy Plan – Formal Submission

Tim Clutterbuck, Chair of EDAP of Region of Niagara

Representing: Industrial Power Users of Niagara,
Niagara Region Economic Development Advisory Panel.

Affiliate Organization: Concerned Manufacturers of Ontario

Occupation: President of ASW Steel Inc.

Executive Summary

Escalating energy costs are impacting the competitiveness of manufacturing in Ontario. Electricity incentive programs in neighboring jurisdictions (NY, MI, PA, OH) use low cost power as a tool for economic development and job retention. This strategy is supported by low cost electricity exports from Ontario power sources. IESO incentive programs are best suited to manufacturers with significant load shedding flexibility and do not in any way protect jobs within facilities experiencing high load factors. This leaves certain large employers in highly competitive sectors (i.e. automotive, microbial and other continuous operations) with no domestic alternatives for competitively priced power. For others, the current programs such as ICI (Industrial Conservation Initiative), IEI (Industrial Electricity Incentive), Industrial Accelerator Program (IAP) and Demand Response (DR) have onerous rules and restrictions that hinder most companies from fully utilizing their intended benefits.

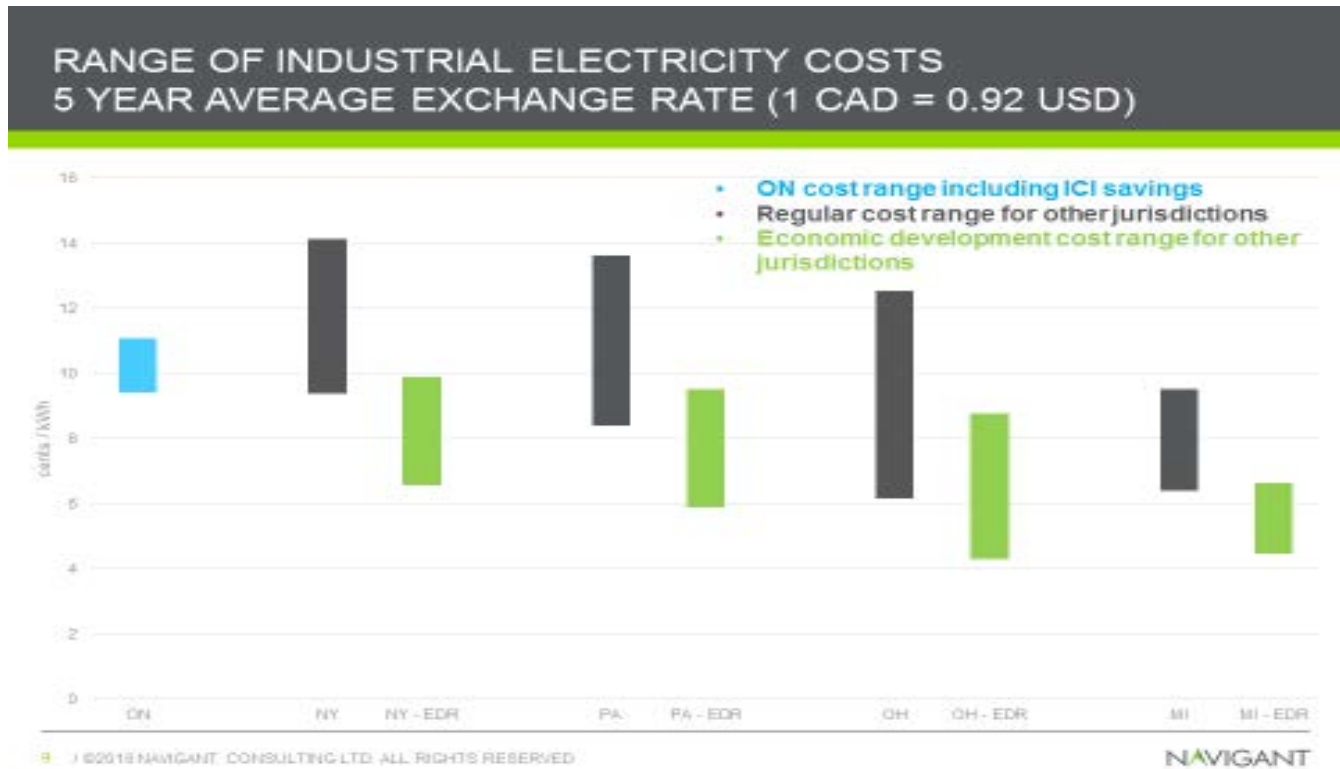
The competitive landscape has been further impacted by Cap and Trade and the Climate Change Action Plan which will add cost and complexity with reduced transparency and little or no recourse to mitigating strategies.

These initiatives appear to place the various impacted Ontario Ministries such as the Ministry of Economic Development and Growth, Ministry of Energy and Ministry of the Environment and Climate Change at odds with each other. Creating an environment that is fertile for maintaining and growing industry is clearly more difficult when government piles on regulatory requirements that increase costs for power and emissions reduction. The Ministries do not appear to have a uniform, holistic plan to provide affordable power to Ontario residents that retains and attracts industry while adequately addressing environmental concerns. The current Climate Change Action plan falls short in this regard. It may be possible to address the funding of Green House Gas (GHG) emission reduction initiatives by reducing the ongoing cost of electricity to those prepared to participate.

In this submission recommendations will be made that speak to improvements in each of the existing programs as well as a strategy that rewards willing Climate Change participants with immediately reduced power costs.

Cost Competitiveness

Ontario manufacturers competing with US companies are at a considerable cost disadvantage with respect to electricity. Ohio, New York, Pennsylvania and Michigan offer discounts in the range of 15-30% on electricity rates to industry that are already lower than Ontario. In addition, Ontario exports electricity to US states at a discount over what manufacturers pay in Ontario thus subsidizing US manufacturers while penalizing Ontario residents and businesses.



Current Programs

The current programs offered through the Independent Electricity System Operator (IESO) to reduce electricity costs for manufacturers, reduce consumption and demand were and are welcome by the manufacturing community. The main programs are summarized below:

IEI

IEI was a program intended to increase the base electrical load in Ontario while providing lower costs to new companies or those expanding. The program was initially offered in December 2012, offered again in 2013 (stream 2) and 2014 (Stream 3). It was undersubscribed and not well publicized. The companies that did sign up were new entities or had previously closed and recognized the opportunity to restart with substantially lower electricity costs. IEI was not offered to existing companies as a tool to allow them to be more competitive and retain Ontario jobs. IEI stream 3 did not have a requirement for employment in the contract. Participants were only required to add facilities to participate in the program and not actually hire additional staff. IEI contracts run for a maximum of 10 years resulting in the current contracted companies being faced with a return to high electricity costs at some point within the next 10 years. The IEI program is not currently available to industry.

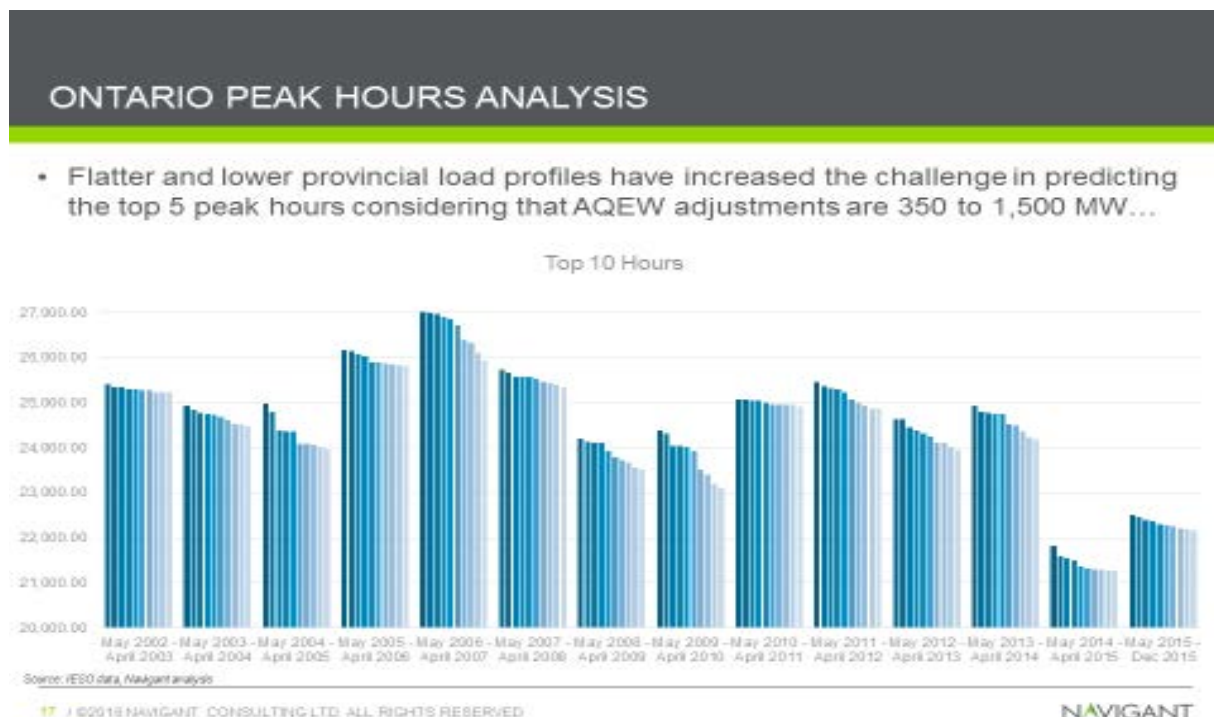
The contracts were 82 pages long with detailed energy consumption data required for submission and complex calculations needed to determine the net energy cost to a participant. The level of detail may have dissuaded potential participants from signing up.

ICI

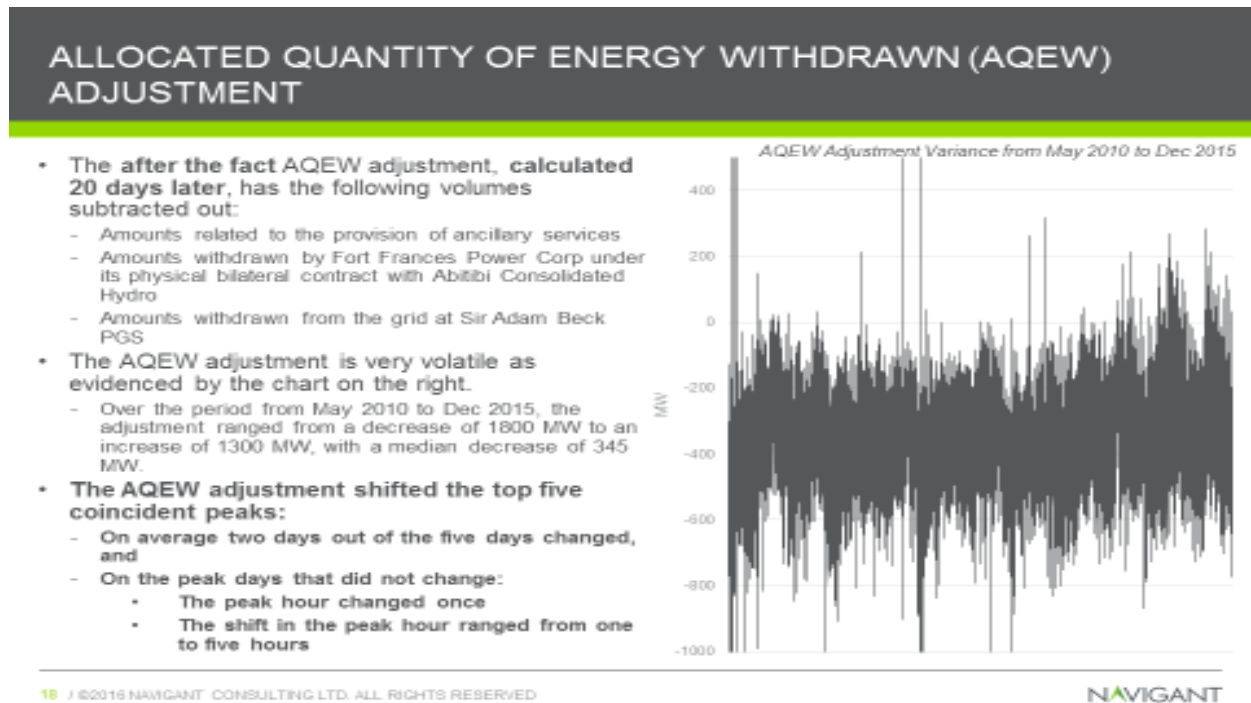
ICI is available to all Class A companies in Ontario. The intent of ICI is to reduce the global adjustment component of the monthly electricity bill if the company shuts down for the 5 highest electricity demand hours in Ontario. The 5 peaks usually happen during periods of hot weather in the Greater Toronto Area. In order to hit all of the 5 peaks and maximize the savings it is necessary to curtail production 15-20 times in the summer months, often with less than 1-2 days advance notice. In order to minimize the risk of missing a peak, a company would have to shut down more than 15 days per year and as long as 6 hours per peak occurrence. IESO website data has been less than reliable for use as a prediction tool on peak days. On some days the predicted peak is changed 3-4 times throughout the day and the timing can shift by hours from the IESO prediction. The IESO website data has also been unavailable during peak demand days.

Large industrial users who are unable to shed load by curtailing production can only make use of this program if they have the option of behind the meter generation to reduce peak demand. This option requires significant capital investment.

Provincial hourly peaks are difficult to predict as the IESO projections are rarely correct. With most large consumers avoiding peaks the ICI program adds to the difficulty in determining when one will occur since loads tend to plateau over several hours throughout a peak day. The result is that a facility must remain down longer to hit the hourly peak to keep their electricity costs at a reduced rate. Also it is evident that the program has balanced provincial consumption bringing consumption on peak days closer together. This creates uncertainty as to whether a peak was avoided.



Further complicating the ICI program is the requirement to use AQEW data to determine the actual peak and timing thereof. This data is available 20 business days after the peak event. The AQEW has shifted the daily peak hour for 3 out of the 5 peaks in 2015/2016 which can negate the effort by a company to reduce load. This impacts the participant as it requires the participant to shut down for additional time to compensate for the potential peak shift caused by the AQEW.



Eligibility in the ICI program will be expanded to include companies with peak loads as low as 1MW. This will allow smaller firms to participate and potentially lower their electricity costs. A new company willing to start in Ontario will not have this program available to them initially as it requires a history of electrical consumption to determine eligibility.

IAP

IAP is a program that includes various incentive programs that can provide limited funding for energy managers and various energy efficiency projects such as lighting upgrades, air compressors, HVAC replacements, variable speed drives, etc.

IAP is a valuable program to companies that cannot otherwise utilize the IEI or ICI programs and as a result pay high electricity prices. This aids those in that category in getting energy projects funded with attractive paybacks. Companies that take full advantage of ICI and IEI have extended paybacks on energy projects due to lower electricity costs/kwh and the project incentives offered only improve the payback slightly. Further, these incentives usually come well after the work is completed impacting the manufacturer's cash flow as the incentive is processed.

IAP incentives are analyzed and audited using a third party energy consultant firm headquartered in the US. The savings calculations usually require fairly rigid criteria to meet often forcing the manufacturer to engage third party consultants and obtain metered data at extra cost. Options for incentives can follow different paths (prescriptive, engineered or custom) each with its own set of rules.

The IAP program has the ability to further add to the Ontario economy. If this program was fully utilized Ontario companies supplying goods and services related to the energy efficiency projects would gain this additional business. IAP also helps in reducing carbon emissions by reducing ongoing energy consumption.

DR

DR is a program that pays major electricity customers to reduce load on days of extremely high demand in Ontario. Similar programs are available in other jurisdictions. It does not lower energy rates but does provide a revenue stream for companies with the ability to curtail production during peak demand. A participating company is paid for the ability to reduce electricity load however the participant may not be asked to actually reduce load unless the grid absolutely requires it. The curtailment expected for a DR participant would be <20 hours per year. The participating company is paid regardless of whether a curtailment is required or not.

Demand Charges

Electrical demand charges are billed each month as a line item termed the Network Service Charge (NSC). This charge is based on the peak demand a company uses in that billing month. The value is determined as the greater of 85% of the peak demand between 7 am and 7pm Monday to Friday or 100% of the coincident demand during the Ontario Peak Demand Hour for the month. With the institution of residential time of use charges and ICI, the peak demand hour is being pushed later in the day and can occur after 7 pm. This causes extra costs to be foisted on companies that are otherwise managing their NSC by running night shifts or delaying production starts to avoid the NSC premium.

Natural Gas

The natural gas industry in Ontario when compared to the electrical industry is managed in a far more transparent and efficient manner. Billing is straightforward and the costs are Ontario Energy Board (OEB) published and approved rates. Pricing is fairly predictable as the rates are approved quarterly by the OEB. Industrial customers are given a menu of various contract options based on their consumption pattern that can provide the best rate based on a customer's daily demand and curtailment capability.

Natural gas rates have generally been comparable with neighboring jurisdictions, however the addition of Cap and Trade surcharges will increase the cost of Natural Gas and further reduce the competitiveness of manufacturing in Ontario.

Natural gas savings incentive programs are far less onerous in terms of applying for and receiving compensation for projects. In the case of Enbridge, all of the paperwork, energy calculations, site inspections are handled by the area representative for energy efficiency. Incentives are quickly received upon completion of the projects.

Cap and Trade

Cap and trade dialogue began in 2016 and was quickly put into motion. Registration to be a cap and trade market participant is an onerous process requiring excessive business and personal information to be supplied by those involved. In most cases 3rd party specialists were needed to calculate current carbon emission levels and assist in the registration process at added cost. Much of this registration work was done without information regarding program costs that would have aided companies that were voluntary participants to make an informed decision on participating.

Cap and Trade legislation is leading to an overall increase in the cost of doing business in Ontario. The initial increase to natural gas rates for companies not registered as large emitters is over 17%. As the cost of cap and trade is seen by most as a tax – Natural gas will now be taxed at a rate of over 30% when Cap and Trade and HST is combined. The Natural Gas surcharge will also impact electricity prices as 5-10% of Ontario electricity is produced from Natural Gas. This additional charge will likely be included in the global adjustment.

Additional costs due to cap and trade may have the unintentional consequence of increasing worldwide carbon emissions by forcing manufacturing to jurisdictions that do not regulate carbon emissions.

Climate Change Action Plan

The current climate change action plan has over 70 actions listed. It is expected that this plan will form the basis of the Long Term Energy Plan. Only one action item timed to start in 2018 pledges to help industry transition to low carbon technologies.

Recommendations

1. Offer an alternative program similar to IEI for companies willing remain or expand in Ontario. Key elements of the program should include:
 - a. Multiple streams – retention, expansion, new – each requiring different criteria such as employment, load retention, capital investment, etc.
 - b. Identify that a solid and reliable base demand is good for electricity generators as well as the overall consumer base and use this program to provide GA rebate coverage for up to 50% of a company's base load. "Contract Volume" allowances at elevated "Contract Demand Factors" can be directly tied to a requirement for reduced GHG emissions as well as employment retention. These reductions can come from any energy source (Natural Gas, Fuel Oil, Gasoline, Electricity, etc.). Such a program is then consistent with MOECC and MEDG initiatives. This program should be geared for companies incapable of economically shedding load and thus making all existing programs unsuitable. The resultant electricity rate should be competitive with surrounding jurisdictions (NY, PA, OH, WI, MI, MB, QC). Specific examples are available upon request;
 - c. Availability of the program to existing businesses with a goal of retaining employment;
 - d. Provide relative price stability for the participant over a 10 year span;
 - e. Reduce contract complexity and eliminate economic burden of Letters of Credit;
 - f. Rebate calculations made straightforward – or offer a flat rate;
 - g. Extend current stream 3 contracts for 5 additional years;
2. Restructure the ICI program. Key changes should include:
 - a. Allow participants a "mulligan" – for example 5 of the 7 highest peaks to determine PDF in lieu of meeting the 5 peaks;
 - b. Remove the AQEW from determining the 5 peaks – or provide real time AQEW updating on IESO's website;
 - c. Require the IESO to estimate a specific peak range on the peak days instead of the peak hour only allowing participating companies to better plan their shutdowns to reduce negative impacts to their business while still reducing Ontario load during peak demand;
 - d. Require the IESO to better predict the peak and not penalize the customer if the IESO did not accurately predict the timing. For example if the peak is estimated from 2-4 pm and it comes in at 1 or at 5. The customer should have its PDF based on the IESO predicted timing. Third parties currently offer a service that better predicts peaks than IESO with performance guarantees,

however IESO should be able to provide this service as part of their mandate to all industry in Ontario.

- e. IESO must ensure reliability and accuracy for their online data. This is a key tool used by all ICI participants to determine when to curtail production and if it is not reliable and accurate can have a significant impact on a company by either causing it to miss a peak or curtail production unnecessarily thus incurring considerable additional costs.
3. Rework the IAP. Key changes should include:
 - a. Fast track release of incentives. Smaller companies have less tolerance for an impact to cash flow and are reluctant to enter into incentive programs where the payment is a long time coming;
 - b. Offer no interest loans for energy projects;
 - c. Offer better incentives for companies fully embracing ICI and IEI so that the simple paybacks are more attractive to business. Incentives should support a simple payback of 2 years;
 - d. Simplify the energy savings calculations and reduce the incentive path options;
 - e. Reduce the overall complexity in getting incentive programs started, approved and paid out.
 4. Demand Charges:
 - a. Remove the NSC based on the Coincident Ontario Peak hour and leave it at 85% of the peak between 7am and 7pm. If necessary change or extend the peak hours to accommodate the shift in the timing of the peak to later in the day;
 - b. Allow a best of “mulligan” provision for the NSC (for example: average of the highest 5 of 7 peaks for the month). This will allow participating companies some leeway in disrupting their production while trying to minimize their peak demands.
 5. Natural Gas:
 - a. Natural gas should remain as a viable energy option. The natural gas Industry’s price transparency and customer service should serve as an example for the Ontario electrical industry as a whole.
 6. Cap and Trade:
 - a. Transparency is required on Cap and Trade costs on Natural Gas and electricity rates;
 - b. Commit to reduce the impact of Cap and Trade on the Industrial base in Ontario;
 - c. Ensure that businesses do not just vacate Ontario to other jurisdictions where regulations allow carbon emissions. This will lead to carbon emission reductions in Ontario but will only transfer the problem elsewhere. It will also result in a higher burden for remaining businesses to support the natural gas and electrical infrastructure.
 7. Climate Change Action Plan:
 - a. Increase actions under the plan for Industry as a whole. Consult industry representatives for assistance;
 - b. Tie GHG reductions to energy programs at reduced rates such as an IEI replacement.

Conclusions

1. Retention of long standing businesses in Ontario that do not have the ability to curtail production need to be addressed in future IESO programs.
2. Job retention needs to be included as an important criteria for economic development as it relates to energy rates like other jurisdictions in North America.
3. Ontario Ministries must effectively collaborate to provide a comprehensive, uniform plan to address the high Ontario energy cost and environmental concerns while providing a competitive economic environment for existing industry and future investment in Ontario.
4. Existing programs (IEI, ICI and IAP) need modification to widen participation to allow businesses access to competitive power rates and provide the ability to reduce consumption to small, mid and large industries in Ontario with a focus on retaining existing and attracting new businesses.
5. GHG reduction goals should be included in future IESO programs as a condition of participation.
6. Natural Gas must remain an energy option for industry in the future. Its costs must be managed so that existing manufacturing facilities remain viable and future investment is encouraged in Ontario.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Tim Clutterbuck', written in a cursive style.

Tim Clutterbuck