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MEMORANDUM

Date: December 16, 2016

To: The Ohio Manufacturers' Association

From: John Seryak, PE (Go Sustainable Energy)

RE: House Bill 554 Analysis

The Ohio General Assembly recently passed Substitute House Bill 554 (HB 554). The bill makes multiple changes to the energy efficiency and renewable energy standards in Ohio, including:

- Reworked rules on utility profit – Utilities could collect shareholder profit on banked energy savings from previous years. This would specifically run-afoul of agreements at the PUCO that explicitly limited share-holder profit.
- Liberalized eligibility for energy efficiency – Several provisions have the potential to significantly water-down the energy-efficiency standards, creating loopholes for gaming of the system, or in a worst-case scenario rendering, the standards meaningless.
- Revised benchmarks – HB 554 effectively makes the next two years of compliance an option for utilities. It also reduces the cumulative amount of energy efficiency. This could have the effect of lowering efficiency gains in the state during the next two years.
- Expanded Opt-Out – The streamlined opt-out is expanded to all mercantile customers, from just large users. The original large user opt-out has yet to take effect in conjunction with functional utility efficiency programs, and thus the effects on manufacturers and system costs aren't well known.

Following is an analysis of provisions of the bill, highlighting the provisions of interest to manufacturers.

1. Reworked Rules on Utility Profit[1]

   A key, if understated, provision of HB 554 allows for electric distribution utilities (EDUs) to collect shareholder profit in any year in which the EDU meets or exceeds the cumulative benchmark requirement for energy-efficiency savings. While seemingly innocuous, this provision could create financial costs to manufacturers and other customers. The mechanism for awarding shareholder profit on

Reworked Utility Profit

- *Same as allowing profit on banked energy savings*
- *Undermines agreements that limited profit to protect customers*
- *Utilities collectively earn ~$50 million+ /year*

[1] Sub. H. B. No. 554, Sec. 4928.6621 (B)

efficiency programs is not part of current law – instead it was created by negotiated agreement between the EDUs, customers, PUCO staff, and other intervening groups through PUCO cases. Typically, these mechanisms contained provisions that allow, but limit, utility shareholder profit to certain amounts in order to protect customers. The PUCO has approved such agreements as part of larger packages. The EDUs have been knowledgeable parties in these cases, and had agreed to abide by the terms. The provision in HB 554 essentially uses the law to undermine the limits on shareholder profits that had previously been agreed to.

Due to the freeze on efficiency requirements from SB 310, nearly all the EDUs are well ahead of their cumulative efficiency benchmarks. Utility compliance with the cumulative efficiency benchmarks should, frankly, not be a concern for many years. The EDUs combined collect ~$50 million /year in shareholder incentives prior to taxes being paid. If each EDU uses the compliance cushion from the SB 310 freeze over the next four years, that could amount to a maximum of ~$250 million in shareholder incentives that wouldn't have been otherwise agreed to by parties at the PUCO. It should be noted that some EDUs will immediately take advantage of this provision, while others are performing well enough that it may not have a near-term impact for them.

Liberalized Energy Efficiency Eligibility

- *Counts old upgrades to competitive power plants*
- *Would allow any change in business energy use to be rationalized as energy efficiency*
- *Creates benefits to the natural gas system paid for by electricity customers*
- *Best case scenario: Liberalized counting creates loopholes that knowledgeable parties game at the expense of other customers*
- *Worst case scenario: Liberalized counting renders the efficiency programs valueless, while retaining costs to customers*

2. Liberalized Eligibility for Energy Efficiency Projects[2]

HB 554 expands what is eligible as an energy-efficiency project. In total, these provisions could be extremely damaging to the integrity of the energy efficiency programs. At a minimum they could create a gaming with the efficiency programs, where some companies take advantage of lucrative, loose energy-efficiency requirements at the expense of other customers. The energy-efficiency eligibility expansions include:

- Upgrades to power plants since 2006 – HB 554 allows heat rate and other energy efficiency or intensity improvements from electric generating units to qualify as energy-efficiency for the standards, but only if proposed by the EDU and only if the power plant was owned or previously owned by an

[2] Sub. H. B. No. 554, Sec. 4928.66(A)(2)(d)(i)(V) and Sec. 4928.662(G) through (K)

Ohio EDU. This would have the effect of displacing new customer-based energy efficiency with power plant upgrades made as long as 10 years ago. The provision does not disallow commitment payments to the generators, lost revenue collection by the EDU, or profit collection on the efficiency gain - the three types of cost recovery typical for energy efficiency programs. In other words, this provision dilutes customer efficiency gains while leaving the door open to subsidies for deregulated power plants.

- Any energy intensity improvement – HB 554 allows reductions in energy intensity of any type for any facility to count as energy efficiency. Legitimate reductions in production-normalized energy intensity from manufacturers should be counted as energy-efficiency in Ohio, and, in some cases already are. Some of the greatest gains in energy efficiency a manufacturer can make come from productivity gains, reduction in downtime, and reduction in lost product, etc. However, this HB 554 provision is so overly broad it captures practically any change in electricity use as "efficiency." For example, consider a business that increases output (production, sales, etc.) – the energy use of that facility would increase, but the energy use per unit output would decrease. HB 554 could allow this business to claim efficiency rebates for its economic expansion. Now, consider if that same business later sees a reduction in output, with a corresponding reduction in energy use. That business would now have a reduction in energy use per unit square-foot of the facility – and could also claim an efficiency rebate! The same business could claim efficiency rebates when its business output increases, and when it decreases, all having nothing to do with the actual efficiency of their equipment or building. This provision, in addition to significantly watering down the efficiency programs, could create the ability to game the programs, benefitting some businesses at the cost of others, all the while being very difficult to regulate to protect customers.

- Gas savings – HB 554 allows the conversion of natural gas savings to electricity savings using a Btu to kWh conversion. There are two distinct issues with this. First, it quite clearly creates a cost to the electric ratepayers while benefits accrue to the gas system, which is just poor precedent. Second, if a fuel conversion were for some reason needed and placed into law, the correct conversion metric would be the heat rate of the grid, not a straight Btu to kWh conversion. In other words, this provision is technically incorrect in addition to being a poor precedent.

3. Standards Benchmarks[3]

There are two main changes to the renewable and energy efficiency benchmarks. First, there is no compliance penalty for 2017 and 2018 for either the renewable or energy efficiency benchmarks, making both essentially voluntary.

[3] Sub. H. B. No. 554, Sec. 4928.64(C) and (D), Sec. 4928.66(A)(1)(a), and Sec. 4928.66(A)(1)(c)

It should be noted that the behavior of the EDUs in response to law changes on efficiency is markedly different. In response to SB 310, two EDUs offered relatively cost-effective and customer-oriented efficiency programs, while two others have either cut or reduced offerings, or used the law changes in their financial favor.

Thus, the two year pause on energy-efficiency requirements could again be complicated, with each EDU acting differently. In some cases, EDUs are likely to offer a reduced amount of energy-efficiency in the coming two years. In other cases, the lack of a requirement is essentially used as leverage at the PUCO, which typically translates to larger utility shareholder profit. In yet other cases, an EDU may carry on as it has.

Finally, the cumulative reduction of the energy-efficiency standards from 22% to 17% is of note. The dynamic of the annual benchmarks creating a 1% per year statutory floor, and shareholder incentives creating a ceiling of greater than 1%, has worked reasonably effectively. Thus, considering the annual benchmarks as a floor that will likely be exceeded – and thus the cumulative efficiency requirement will likely also be exceeded - the remaining concern is that in the final years of the requirements there is still a step-jump from 1% to 2% savings requirement. While there is evidence that EDUs can achieve 2% savings per year, the evidence that they can do so at the same unit cost is mixed. Thus, a ramp up to achieve the cumulative 17% would be a considerably better approach for manufacturers, as it would allow a slow, steady increase to a more moderate annual requirement.

Standards Benchmark Changes

- *Compliance optional for 2017 and 2018*
- *Cumulative energy-efficiency reduced from 22% to 17%*
- *Energy-efficiency benchmarks retain a 1% to 2% jump in later years*
- *Cumulative renewable energy remains the same*

4. Expanded Opt-Out[4]

HB 554 expands the streamlined opt-out from efficiency programs to all mercantile customers. Current law allows for two mechanisms for customers to exempt themselves from paying into the energy-efficiency programs. First, there has always existed a mercantile self-direct mechanism. The mercantile self-direct mechanism allows a customer to either forgo paying into the efficiency programs if they have completed efficiency projects on their own, or, it lets a customer take a cash payment for efficiency projects completed but not yet submitted to the EDUs. Hundreds of businesses have used the mercantile self-direct program, and the majority has taken the cash payments instead of exempting themselves from payment. Second, a streamlined large-user opt-out was created by SB 310. The opt-out allows very large electricity users on transmission or sub-transmission service to forego

[4] Sub. H. B. No. 554, Sec. 4928.6610(A)(1)

paying into the efficiency programs with no efficiency savings requirement, but the customer is then not allowed to participate in the programs. HB 554 would expand the streamlined opt-out to all mercantile customers. Mercantile customers comprise a much larger group of businesses, including any business that uses 700,000 kWh/year or more, or any business with multiple accounts. This could include perhaps a small office building of 70,000 square feet or larger.

Of interest to manufacturers is an option that provides flexibility to perform on their own, yet maintains the increased adoption of energy efficiency at customer plants, and thus maintains the universal cost-saving benefits to the system as well as direct cost savings.

Smaller customers do benefit from the economies of scale that the EDU efficiency programs create. It is not clear that an expanded opt-out would sustain the signal to the efficiency marketplace to make available the product and services to smaller customers at today's levels. All that said, it is clear that eligible businesses will value the opt-out, in the event the efficiency standards are made too costly or ineffective. The expanded opt-out takes effect January 1st, 2019.

Expanded Opt-Out

- *Large user opt-out takes effect for the first time in conjunction with utility programs Jan. 1, 2017*
- *Expands opt-out to all mercantile customers in Jan. 1, 2019*
- *Mercantile self-direct still available to all mercantile users*
- *Differences: Mercantile self-direct requires proof that efficiency projects were completed, also allows customers to still participate in programs*