April 29, 2019

The Honorable Brad Roae
Chairman
House Consumer Affairs Committee
151 East Wing
PO Box 202006
Harrisburg, PA 17120-2006

The Honorable Robert F. Matzie
Minority Chairman
House Consumer Affairs Committee
121 Irvis Office Building
PO Box 202016
Harrisburg, PA 17120-2016

On behalf of the Industrial Energy Consumers of Pennsylvania (IECPA) and its member companies representing over 25,000 employees statewide, we are providing this testimony regarding our opposition to House Bill 11 which would provide another rate payer funded subsidy to the nuclear industry. IECPA member companies operate energy-intensive facilities with significant expenditures dedicated to electricity costs. Moreover, because these manufacturing businesses are exposed to global trade, they cannot merely pass additional costs on to their customers without risking the loss of those customers to their global competition. IECPA members support a diverse power plant generation portfolio including nuclear power plants. However, we do not support a unique subsidy for those plants. While increasing electricity cost on households and small businesses are bad enough, the brunt of the impact will be felt by large-scale users of electricity, including our manufacturers, schools, transit systems and city governments.

**HB 11 is not about fixing a reliability issue**.
PJM Interconnection, the regional transmission organization that coordinates the movement of wholesale electricity in all or parts of 13 states, including Pennsylvania, has confirmed that the electricity grid will remain reliable and resilient, even with the planned closure of the plants in our nuclear fleet that are not cost-efficient.[1] Pennsylvania's competitive markets are driving private investment in the growth of renewables as well as 16 new natural gas power plants in operation or currently under construction in the state. These new plants alone will generate nearly 15,000 megawatts of power.

**HB 11 is not about adding new renewable energy generation**. The Alternative Energy Portfolio Standards Act of 2004 was designed to develop NEW renewable energy generation facilities. Even the Pennsylvania Public Utility Commission acknowledges that, "Pennsylvania Act 213 The Alternative Energy Portfolio Standards Act of 2004 (AEPS) was enacted *to provide economic development opportunities by increasing the mix of alternative electricity generation in Pennsylvania*." http://www.pennaeps.com/aboutaeps/

[1] "Fuel Security Analysis: A PJM Resilience Initiative" by PJM Interconnection, December 17, 2018

Under the AEPS program sellers of electricity can meet their obligations in three ways: by the generation of the electricity from the ownership of qualifying facilities, by the direct purchase of electricity and the associated Alternative Energy Credits (AECs) from another owner of a qualifying facility or by purchasing Alternative Energy Credits. The AEPS design is such that competition for the supply of these services would exist and generation owners wishing to sell and those obligated to purchase would have the option to compare price and level of service and make choices as to where and with whom to do business resulting in the development of new resources.[2] The AEPS program was intended to encourage development of new energy sources that are truly renewable and sustainable, not to prolong the life of existing non-renewable generation. However the HB 11 modifications to Act 213 are not focused on adding new renewable energy generation. Likewise HB 11 will not provide economic development of new nuclear generation facilities. It will only provide additional revenue payments to existing nuclear facilities and impose an additional cost to electric utility customers.

**The subsidy created by HB 11 fails to acknowledge the massive financial support that was already provided to the Pennsylvania nuclear industry.**

From 1999 through 2015 nuclear plant owners were awarded large stranded cost recovery funds to eliminate expected investment losses when prices were expected to drop post-electric industry restructuring. Over $8.6 billion of nuclear-related stranded cost was paid for those plants. That's $8.6 billion paid by residential, commercial and manufacturing customers in Pennsylvania so that these nuclear plants could operate in the competitive market. Part of the calculation in determining these stranded costs was a forecast of the plant's future market electricity sales. However, for the first fifteen years the deregulated electricity market prices were significantly higher than what was included in the stranded costs forecast. Therefore, in addition to the billions of dollars in stranded cost payments, the nuclear generation owners also enjoyed billions of dollars in actual energy market revenues above what was expected.[3] During this time of higher energy market payments, the industrial customers never asked for and the Pennsylvania legislator never proposed or passed a bill requiring nuclear generation owners to return any of the over-earnings back to customers. Instead, due to the higher electricity cost, industrial customers had to make cuts to other operational costs, including employment, and develop more efficient operations. Now that the energy market has fostered private investment in fuel development such as shale natural gas and new, lower-cost renewable generation which has driven down the energy market prices, these nuclear generation owners want another costly bailout from customers. However, this time there is much less opportunity for industrial customers to offset this increased electricity cost from another bailout as the major operational efficiency changes have already been implemented. Those operational efficiency changes also include Pennsylvania's loss of significant manufacturing capacity and the related jobs to the Financial Crisis and the recovery from it. That means any electricity cost increase from another nuclear bailout will likely be offset by a reduction in employment.

**HB 11 will provide millions of dollars to the already profitable nuclear power industry.**

In 2018 and 2019 nuclear power generators in Pennsylvania are projected to make more than a billion dollars collectively in profits, according to data from PJM Interconnection's Independent Market Monitor.

[2] "Alternative Energy Credits and the Renewable Energy Marketplace in Pennsylvania", Edward V. Johnstonbaugh, July 7, 2016
[3] "Analysis Regarding Pennsylvania Nuclear Power Plant Cash Flows", Daymark Energy Advisors, June 14, 2017

In fact four of Pennsylvania's five nuclear power plants were profitable in 2018, with the exception of Exelon's TMI, a single reactor that is inefficient and uncompetitive.[4] Also, Peach Bottom nuclear power plant recently applied to extend its license through 2054. The entire nuclear power industry in Pennsylvania is not at risk.

**HB 11 creates a subsidy that will negatively impact the competitive market.**

Subsidies work by taxing one group and giving the revenue to another. HB 11 clearly creates a subsidy by proposing to collect millions of dollars in Tier III credit cost from the electric distribution company customers with the intention of giving the bulk of that revenue to existing nuclear generation facility owners. This subsidy to existing nuclear plants will crowd out new, more efficient electricity plants. "In a world of declining or even stable electricity use, the profit motive for investing in new capacity is weakened if new plants are not allowed to outcompete less efficient plants for market share. So as along as less efficient nuclear plants are meeting consumer demand, newer plants powered by natural gas, wind, solar or some other source will have a difficult time finding a market."[5] The Independent Market Monitor for PJM stated, "Subsidies to specific resources that are uneconomic as a result of competition are an effort to reverse market outcomes with no commitment to a regulatory model and no attempt to mitigate negative impacts on competition. The unit specific subsidy model is inconsistent with the PJM market design and inconsistent with the market paradigm and constitutes a significant threat to both."[6] The recent study by The Pennsylvania State University also found that, "subsidies to a generator in a competitive market are problematic for three reasons:

1. Subsidies are among the least efficient means to achieve emission reductions. Economic studies have long shown that pricing activities that internalize negative externalities in ways that are consistent with market competition (via emission taxes or tradeable permit systems) tends to be the most efficient mechanism to penalize pollutant emissions. In contrast, subsidies to specific participants or technology types have been shown to be among the least efficient means to achieve emission reductions, leading to higher costs and lower benefits to society.
2. Subsidies shift investment risk to consumers. Electricity restructuring is premised on private investors being able to manage investment risk at the lowest cost. In contrast, subsidies shift the risk of investment in uneconomic generation resources back to the consumers, who ultimately pay the costs of the subsidies.
3. Subsidies can beget further subsidies. Subsidies create a precedent whereby firms become more likely to make inefficient investments because they will not ultimately bear the costs for uneconomic decisions. Handing a subsidy to one firm or technology type signals to other market participants that they could receive similar treatment."[7]

[4] "Q3 State of the Market Report for PJM", Monitoring Analytics, LLC the Independent Market Monitor for PJM, November 8, 2018
[5] "State Nuclear Subsidies Not Needed" by Adam Millsap, April 19, 2019
[6] "State of the Market Report for PJM Volume 1: Introduction" by Monitoring Analytics, LLC the Independent Market Monitor for PJM, March 14, 2019
[7] "ANALYSIS OF STATE POLICY INTERACTIONS WITH ELECTRICITY MARKETS IN THE CONTEXT OF UNECONOMIC EXISTING RESOURCES: A CRITICAL ASSESSMENT OF THE LITERATURE" by Seth Blumsack, Chiara Lo Prete, Uday Shanbhag and Mort Webster, September 28, 2018

**HB 11 creates an artificial cost on carbon just on Pennsylvania utility customers.**

There has not been a universal market cost (nationally or internationally) placed on carbon dioxide. However HB 11 proposes to collect a carbon cost -- effectively a tax -- from Pennsylvania residents, businesses and manufacturers and give those millions of dollars to existing nuclear facilities potentially even facilities not even located in PA. "If society determines that carbon is a pollutant with a negative value, a market approach to carbon is preferred to a technology or unit specific subsidy approach. Unit specific subsidies are not an efficient approach. Implementation of a carbon price is a market approach which would let market participants respond in efficient and innovative ways to the price signal rather than relying on planners to identify specific technologies or resources to be subsidized. It would be helpful to the states if PJM would offer to model the impact of various levels of carbon prices on the dispatch and economic viability of units in PJM and the associated flow of dollars to states in the form of carbon revenue. With this information, the states could determine whether there is a form of carbon pricing and carbon revenue distribution that all the states could agree to."[8] We should not rush to impose a carbon cost in Pennsylvania just to meet a deadline set in the board room of a profitable nuclear generation company.

**HB 11 puts Pennsylvania energy intensive manufacturing jobs at risk.**

Pennsylvania for over two decades has been at the forefront of creating a viable retail market for electricity; that would be undone by HB 11, which would effectively establish a charge of approx. $3.04 per MWh to $3.95 per MWh on top of the price for power available to customers in the market. This would result in an annual cost of 192 million dollars per year to Pennsylvania industrial / manufacturing companies placing them at a competitive disadvantage to manufacturing in other states and other countries. For energy intensive companies, energy costs are one of the top operating cost for the company. This level of operating cost increase will require cuts to other operating costs, which most likely includes employment, in order for Pennsylvania industrial companies to remain competitive. In many cases it will result in production being shifted to facilities in other states or other countries that are not burdened by these significant cost increases. The closure of a higher cost, inefficient nuclear facility will not result in energy market price increases. Pennsylvania Public Utility Commissioner Andrew Place indicated in his Analysis of Pennsylvania Nuclear Plants and Available Policy Alternatives, "cost impacts of the retirement of TMI and Beaver Valley are very likely to be insubstantial". Also, a 2018 Penn State University study[9] concluded that electricity prices would not be impacted and the lights will stay on if the aging and uneconomical Three Mile Island and Beaver Valley nuclear power generating stations were to close as scheduled. In fact, the Penn State study concludes that prices could actually decline when nuclear capacity is replaced with lower-cost, more efficient power generating resources. However the carbon cost subsidy created by HB 11 will be substantial and will put Pennsylvania industrial manufacturing jobs at risk.

[8] "State of the Market Report for PJM Volume 1: Introduction" by Monitoring Analytics, LLC the Independent Market Monitor for PJM, March 14, 2019

[9] "ANALYSIS OF STATE POLICY INTERACTIONS WITH ELECTRICITY MARKETS IN THE CONTEXT OF UNECONOMIC EXISTING RESOURCES: A CRITICAL ASSESSMENT OF THE LITERATURE" by Seth Blumsack, Chiara Lo Prete, Uday Shanbhag and Mort Webster, September 28, 2018

**There are significant issues with HB 11.**

- Tier III alternative energy source do not have to be located in Pennsylvania.
- The alternative energy source derived from nuclear fission does not have to demonstrate financial need for a Tier III payment. HB 11 does not require a fully contested proceeding at the public utility commission demonstrating that the alternative energy source would cease operation without the purchase of the Tier III alternative energy credits by the electric distribution companies.
- There is no firm sunset date on the Tier III program.
- There is no customer rate impact cap associated with the Tier III electric distribution company nonbypassable adjustment clause.
- The electric distribution company nonbypassable adjustment charge should not be a volumetric $/KWh charge for industrial class customers.
- The Tier III alternative energy credit reporting period price does not include a reduction for payments received under any federal or regional transmission organization program that values the zero-emissions attributes of Tier III alternative energy sources during the applicable reporting period.

**In summary, IECPA is opposed to HB 11.**

1) There is no reliability problem. A wholesale change to the characterization of nuclear generation, for the sole benefit of propping up an inefficient facility, creates an artificial safety net that disregards the practical realities of competition in a free, deregulated market.
2) HB 11 carbon subsidy would be provided to an industry that has profited enormously in the past from direct and indirect subsidies.
3) Nuclear facilities are not at a disadvantage in Pennsylvania. All but one are profitable. In fact, a recent State of the Market Report for PJM projects that only three of eighteen nuclear plants in the region – Three Mile Island along with Davis-Besse and Perry in Ohio won't be able to cover their costs between 2019-2021. The report also notes that all three plants are single-unit sites that have higher operating costs than more efficient multiple unit sites. Additionally, "PJM has, and continues to actively pursue, reforms in capacity and energy markets which should enhance earnings of nuclear power plants."[10]
4) Pennsylvania energy intensive manufacturing companies should not be placed at a competitive disadvantage by imposing a carbon cost subsidy to be paid to nuclear generation owners. The costs to energy intensive manufacturing companies created by HB 11 will be substantial and will put Pennsylvania industrial manufacturing jobs at risk.

Rod E. Williamson
IECPA Executive Director

[10] "Analysis of Pennsylvania Nuclear Plants and Available Policy Alternatives" by Andrew Place, Hayley Book and Eric Matheson, March 6, 2019