Testimony of Michael K. Messer
On Behalf of the Industrial Energy Consumers of Pennsylvania
Before the Pennsylvania House Consumer Affairs Committee
PA Act 129 Program Hearing

September 1, 2015

Good afternoon Chairman Godshall, Chairman Daley and members of the House Consumer Affairs Committee. My name is Michael Messer and I am Manager, Energy & Regulatory Affairs for Linde LLC. I am accompanied by my colleague David Ciarlone, Manager, Global Energy Services for Alcoa Inc.

Linde employs a very electricity intensive process to manufacturer atmospheric gases at three plants in Pennsylvania and numerous other facilities across the United State and world. Alcoa also operates a variety of energy-intensive processes associated with the production and use of aluminum and other lightweight metals at five production and research facilities in Pennsylvania and over one hundred-sixty other locations across the United States and around the world.

Today we represent the Industrial Energy Consumers of Pennsylvania (IECPA). We are a trade organization formed in 1982 by large energy-intensive customers with one or more facilities in Pennsylvania. Our 19 members spend more than $1 billion annually on natural gas and electricity and provide more than 41,000 good paying jobs in the Commonwealth.

We are pleased that the Committee recognizes manufacturing's crucial role in Pennsylvania's economy. A recent report by Team Pennsylvania[1] highlights the manufacturing's value to Pennsylvania.

- Manufacturing provides over 574,000 jobs within Pennsylvania, which is over 10% of the state's workforce.
- The average annual compensation for each of these jobs is $64,193, which is 44.2% higher than non-manufacturing jobs.
- The average annual contribution to Gross State Product for each of these jobs is $131,147.
- Manufacturing accounts for 90% of Pennsylvania's exports.

IECPA commends the Committee for pursuing a review and evaluation of the Energy Efficiency and Conservation ("EE&C") elements of the PA Act 129 Program. We believe that Act 129 needs important reform. Specifically, we

[1] Data from Team Pennsylvania Foundation, Governor's Manufacturing Advisory Council, Recommendations to Encourage Growth in Pennsylvania's Manufacturing Sector, 2012, page 3

believe Act 129 needs to be amended to allow large industrial energy consumers the opportunity to *Voluntary Opt-Out* of their utility-managed EE&C Plans. Legislation to implement this reform has been introduced in the Senate as S.B. 805, with a bi-partisan list of sponsors. The voluntary Opt-Out would commence for Act 129 Phase III, which starts on June 1, 2016, and would be available for all subsequent phases of the EE&C Plans that may be approved by the Public Utility Commission. The proposal strikes an equitable balance among the affected parties through three simple ground rules:

- Customers that Opt-Out will not be eligible to receive grants or other EE&C Plan benefits during the phase.
- Customers that Opt-Out will not be required to pay the cost recovery surcharge for the phase
- Customers' energy requirements will be removed from the electric distribution company's (EDC's) targets for the phase.

This adjustment to Act 129 will make Pennsylvania's large energy consumers and manufacturers more competitive while maintaining the rigorous internal energy efficiency programs we have practiced for decades.

Our testimony will be presented within the format of the Committee Questions that were issued for today's hearing; with particular focus on the Large Consumer Voluntary Opt-Out, that we believe is necessary for Pennsylvania. Following discussion of the Committee's questions, we highlight the key issues with a brief Case Study.

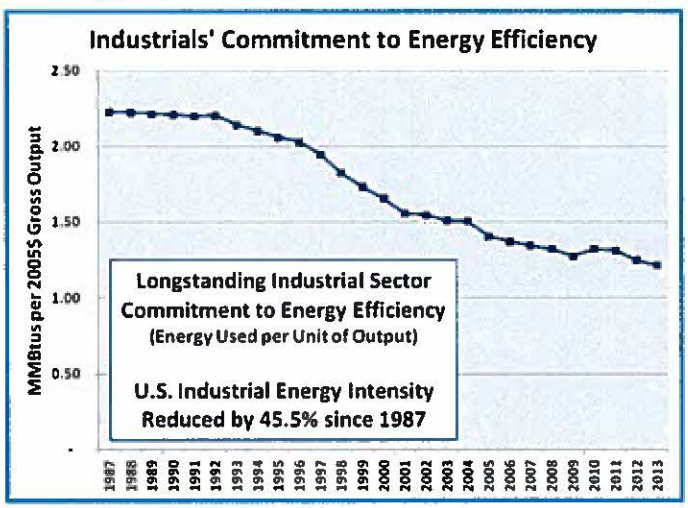
COMMITTEE QUESTIONS

I. HOW HAS ACT 129 EVOLVED SINCE 2008?

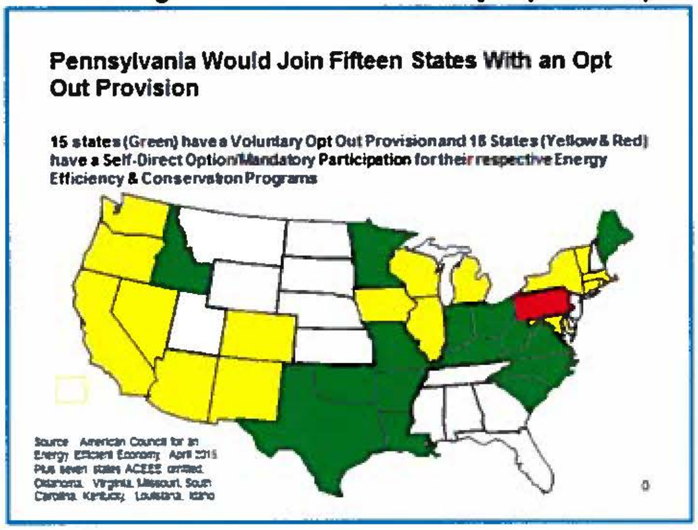
Our answer is clear; the EE&C portion of the Act 129 Program has not evolved since 2008. However, at least from the perspective of Pennsylvania's large industrial consumers, all of the conditions that supported its passage have evolved markedly. Compared to 2007 and 2008, the energy market in 2015, as well as the energy market we project well into the next decade is very different. Another key difference is that several other states have already allowed their large industrial consumers to Opt-Out of their state energy efficiency programs, thus giving those businesses a significant competitive advantage compared to their competitors in Pennsylvania. A third and final difference is that manufacturing in Pennsylvania is falling behind the "manufacturing renaissance" in the rest of the US despite the presumed advantages of the Marcellus Shale.

As stated, the energy market is entirely different. Escalating wholesale and retail electricity prices from the energy crisis of 2007-2008 have reversed. The development of the Marcellus Shale gas play as well as several other gas and oil shale plays in the US have increased projected energy supplies well into the next decade. Simultaneously, a deep global recession followed by a persistently slow recovery has kept a cap on demand. As a result, wholesale energy prices are below 2003 levels and are forecasted to remain there through at least 2020. Moreover, the abundant supply will make energy prices far less volatile at these lower levels. For large, energy-intensive manufacturing businesses, <u>these conditions could not be more different from the high price and high price volatility conditions that supplied the impetus to enact the PA Act 129 Energy Efficiency initiatives.</u>

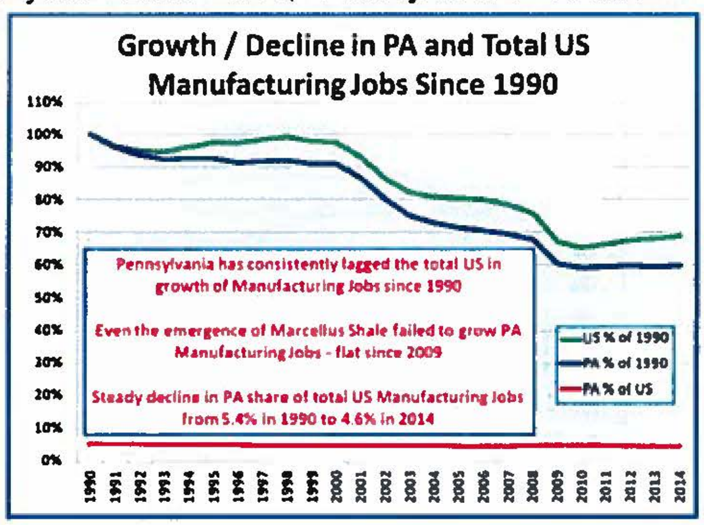
It is also important to note that with or without Act 129, and despite lower and more stable energy prices, large energy-intensive manufacturers will not change their approach to energy efficiency. These businesses must continuously strive to achieve improvements in productivity, including energy efficiency. As the data from the U.S. Energy Information Administration and U.S. Bureau of Economic Analysis shows, this continuous focus on energy efficiency produced a 45% decrease in Industrial Energy Intensity going back to 1987. The simple fact is that these businesses must sustain their competitive advantage by making the most efficient use of all of their resources or they do not earn the right to survive. Energy efficiency measures are pursued to create and maintain these competitive advantages.



The second change since 2008 is that several state governments have evolved to offer large consumers Voluntary Opt-Out options from their respective EE&C Program: the same type of Opt-Out Option we seek today. As of now, fifteen states, as highlighted in green, have approved giving large consumers the Option to leave the EE&C Program. Many of these states are immediately to the West and South of Pennsylvania giving our competitors in those states a potential competitive advantage. <u>We ask the Pennsylvania legislature make the Commonwealth the sixteenth state to offer a Voluntary Opt-Out by enacting SB 805 or similar legislation by October 2015.</u>



Pennsylvania manufacturing jobs have consistently lagged behind the rest of the country. In the twenty-five years since 1990, Pennsylvania's decline in manufacturing jobs is 10% greater than the United States as a whole. Even as the "shale boom" has been driving manufacturing growth in the rest of the country, the state that is literally sitting on top of the Marcellus is not growing at all. However, since 2010, the EE&C plan surcharges have loaded additional energy costs on to Pennsylvania's Energy-Intensive, Trade-Exposed (EITE) businesses. The surcharges are a significant. It is common for large consumers to pay monthly surcharge amounts of $40,000, $50,000 and more. Surcharges like these add up quickly. Over a five-year period, a "single site" manufacturing facility could easily pay $3 million or more into the Phase III Program. To add insult to injury, these large energy consumers are rarely able to collect grants from these EE&C Programs, and, when they do, they usually only return a fraction of the surcharges paid. These businesses therefore become "net payers" into their EE&C Programs. Because these businesses are exposed to global trade, they cannot pass these surcharges on to their customers. In the



end, these businesses are rendered less competitive and less able to retain and grow good manufacturing jobs in Pennsylvania. <u>This is why it is so urgent for Pennsylvania to make the requested adjustment to Act 129 prior to the planning for Phase III.</u>

II. <u>Are Changes/Updates to the EE&C Provisions of the Act Necessary? If So, Why? What Specific Changes/Updates Should Be Considered?</u>

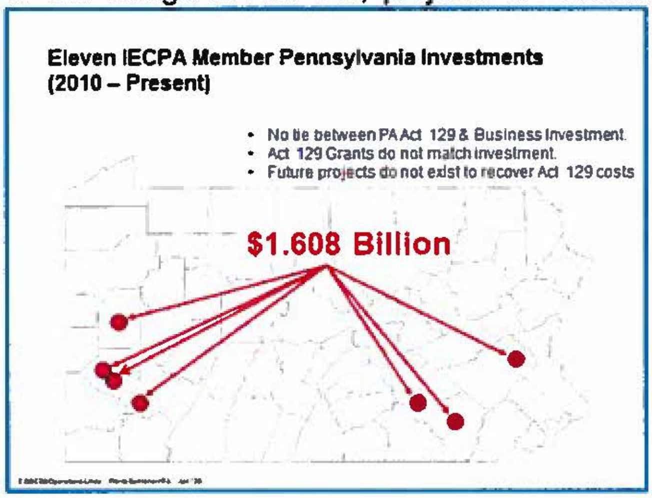
Yes, as noted above, the EE&C Provisions of Act 129 needs to be changed to allow large industrial customers to Opt-Out of their utility-managed EE&C Programs. There are four reasons why this change is necessary.

- The conditions that gave rise to Act 129 in 2008 no longer exist.
- Compulsory participation in the EE&C Programs is putting Pennsylvania's large industrial customers (large manufacturers) at a competitive disadvantage compared to their competition in other states and globally.
- Design flaws inherent in the EE&C Programs make them incapable of effectively incentivizing energy efficiency investment by large industrial customers.
- The energy efficiency consulting services and other services offered under the EE&C Programs lack the specialized expertise to add value to large industrial customers.

The first two of these four reasons are discussed above. The following paragraphs will address the second two reasons (Ineffective Incentive and Consulting Services) and describe more about the Opt-Out would operate.

<u>Ineffective Incentive</u>
At the core of the EE&C Programs is the theory that a small boost of outside funding would incentivize energy efficiency projects that would not be economically justified otherwise. In other words, the outside grant would 'tip the balance' on the investment decision. These outside grants would be funded by collecting surcharges from all customers and the decisions on what projects would qualify for what amount of grant would be made by the utility administering their program. <u>Unfortunately, the assertion that EE&C Program grants incentivize energy efficient investment is simply not true.</u> Four factors cause this theory to fail and make the EE&C Programs incapable of incentivizing large industrial customers to make energy efficiency investments. These four factors are scale, timing, uncertain criteria and the actual source of funding.

With respect to <u>scale</u>, the grants provided are too small compared to the size of the typical project. To demonstrate this mismatch in scale we note that eleven members of the IECPA organization have invested over $1.6 billion in Commonwealth facilities to enhance competitive positions, create and retain jobs and generate long-term business opportunities. These investments were made over the past six years that Act 129 has been in effect. Many of these individual investments were in the millions or tens of millions of dollars. However, the Utility Act 129 Programs have grant limits, many around $500,000. Furthermore, due to the design of Act 129, projects are unlikely to receive the maximum grant. Utilities are generally very conservative on grant amounts to insure they do not incur penalties they face under Act 129 should project benefits not reach expected levels. Their need to conserve funds and minimize their exposure to penalties causes utilities to significantly undervalue energy efficiency projects implemented by large industrial customers. As a result, the grant actually approved will offset only a small fraction of the cost for a large energy efficiency project. Such grants are simply too small to influence approval of these large investments in Pennsylvania.



It is also instructive to pause and note that the total Commonwealth spending on Act 129 Programs to-date is approximately $1.574 Billion (Phase I: $803 million and Projected Phase II: $774 million). The means that during the time that it has been in effect, investments made in Pennsylvania by eleven IECPA members exceed the total of all Act 129 investments statewide. This underscores the mismatch in scale between the investment needs of large industrial energy consumers and the design of the Act 129 EE&C Programs.

With respect to <u>timing and uncertain criteria</u>, we need only consider the lifecycle of one of these large projects. Before making the final investment decision to approve a large project, the business will have spent months if not years gathering data, weighing options and reefing plans. After the decision to approve the project, procurement, construction, installation, implementation and training often takes several more months or years. Hence, the first opportunity to measure the actual effectiveness of the project can be years after the business made its final investment decision to proceed. Again, because the utilities managing the EE&C Program funds are not are not able to give these project the 'benefit of the doubt', this means that the large industrial customer cannot know that its project has qualified for a grant until long after it needs to finalize an investment decision. Compounding the delay is the fact the utility almost never has access to the specialized expertise needed to accurately judge the effectiveness of a complex production process. This leads the utility to engage consultants that seek to use criteria that are novel and unsuited to the operation they are evaluating and that were not known to parties when the investment decision was made. This, in turn, leads to further delay, frustration and wasted cost as the utility, the large industrial customer and their respective consultants debate the merits of an investment decision that is now years in the past. It should also be noted that the lifecycle of these projects will rarely fit neatly into an Act 129 Program Phase. This means that the already fraught debate over the effectiveness of a project can be further complicated by the differences between the criteria assumed when the project was approved and the criteria used when the project is complete.

With respect to the actual source of funding, the grants are not actually using 'outside funding'. The grants paid to large industrial customers come from a pool funded by other industrial customers – i.e. they are being paid their own money. Because most of these large industrial customers have internal energy efficiency programs that are quite mature, they no longer have the kinds of projects that allow them to qualify for grants sufficient to recover the surcharges they paid into the EE&C Program grant pool. Hence, they become net payers into the EE&C Programs. However, the worst feature of these EE&C Programs is that the many large industrial customers who proactively invested in energy efficiency projects long ago are now being compelled to subsidize energy efficiency projects for their less proactive competitors. In these cases, the EE&C Programs are cancelling the competitive advantage that most large industrial customers created with their early investment in energy efficiency.

The basic design of the Act 129 EE&C Programs misunderstands the size, scope and funding of energy efficiency projects for large industrial customers. Consequently, the grants intended to incent energy efficiency projects are too small, too late in the project lifecycle and too uncertain to be a valid consideration in any investment decision. Moreover, the EE&C Programs are not really providing new, outside funding. They are merely reallocating capital within the state and picking a different set of 'winners and losers'. An industrial customer will always apply for a grant for which it might qualify. Failure to do so would be a lapse in their financial obligation to their owners. However, we should not mistake this for a validation of the theory underlying the EE&C Programs. These EE&C Programs do not incentivize more energy efficient investment by large industrial customers, and there is no straightforward way to fix these EE&C Programs so that they do provide the incentive intended. It would be far simpler and far more effective to allow these customers to allocate their funds to investments that make them as competitive as they can be which may include investments in energy efficiency if that is the best investment at the time. In any case, these large customers must be allowed to Opt Out of the EE&C Programs.

Consulting Services – Lack of Specialized Expertise

Large industrial customers managing manufacturing operations in Pennsylvania employ two kinds of production processes. Some production processes are quite old, but they have been updated or modernized with several innovative 'fixes' applied incrementally as conditions demanded and as funds allowed. Other production processes represent breakthroughs that truly define the state of the art in their respective industries. Most large industrial customers in Pennsylvania combine such old and new production processes in their manufacturing operations. The expertise needed to design, build, modify, maintain and operate such a mix of processes is highly specialized. In some cases, the innovation and resourcefulness of these highly specialized experts is recognized by their work being featured in leading technical journals. These specialized experts are already either on staff within the global organizations supporting a production facility within Pennsylvania or retained under long-term consulting relationships.

On the other hand, the energy efficiency consultants employed by the utilities operating their EE&C Programs are more general in their focus. While these energy efficiency experts can be quite valuable to commercial and small industrial enterprises, they lack the specialized expertise to add value to complex, large energy-intensive production processes.

Large industrial customers with mature internal energy efficiency programs would not hire such general energy efficiency consultants, and they would certainly not disclose their trade secrets by allowing outside consultants to tour their operations. The Act 129 EE&C Programs that compel large industrials to fund their utility's employment of consultants that they do not need and would never use is a wasteful misallocation of resources.

<u>Operation of the Opt-Out</u>
The operation of the Opt-Out featured by SB 805 is quite simple and fair. Each large customer would have the choice to "Stay-In" or "Opt-Out" of the Act 129 EE&C Program on a Phase-by-Phase basis. For Phase III, this would coincide with the commencement of Phase III on June 1, 2016.

We hasten to stress that we do not seek the end of large consumer participation in Act 129. We believe that each large consumer is best qualified to represent its own interests and should be given that choice for each program phase of Act 129 that the PUC approves.

If a large consumer exercised its choice to Opt-Out of Phase III, it would be out of the Phase III Program for the entire five-year period. The consumer would pay no surcharges but would also receive no grant payments or other services from the Program. Simultaneously, the utility would remove that consumer's load from their Act 129 targets. Either a large consumer will be IN the Program or OUT of the Program for the full period, and there will be no opportunity to move in and out multiple times. This provision is designed to insure no entity could game the system (receive grants and then not pay surcharges).

<u>To insure large consumers and utilities have sufficient time to make their evaluations and plan their respective Phase III Programs before the June 2016 start date, the deadline to pass SB 805 or similar legislation is October or November 2015.</u>

III. What are the Costs of Act 129's EE&C Phase 1 and 2 Plans to ratepayers? What are the Anticipated Costs of Phase 3?

Large industrial consumers have already seen monthly surcharges for the Act 129 EE&C Program ranging in the $30,000 to $50,000 for a single location, with some large consumers paying far higher. Under Phase I and Phase II, annual costs per location have ranged from $300,000 to $1,000,000 or higher.

The planned Act 129 Phase III Program will expose large consumers to these cost levels for a five-year period. Act 129 Phase III will likely have a cost of approaching $1.2 billion. While this is a staggering cost, it is accompanied by the fear that the Program returns will be highly diminishing. The easy and high return energy efficiency projects have already been implemented. The Act 129 Phase I and II Programs have already picked the low-hanging fruit. Experience shows that the cost of attaining the same degree of energy efficiency improvement increases as the energy efficiency program matures. Projects for the next five years will have a far lower efficiency value and far higher acquisition cost. This is the basis for our concern that, by the time it is completed, the full cost of Act 129 Phase III could exceed $1.2 billion.

IV. How Will Changes/Updates Effect Costs to Ratepayers?

The Large industrial consumer Opt-Out envisioned by SB 805, or similar legislation, would reduce the monthly costs to these ratepayers. However, there would be no change to the costs paid by other ratepayers. Different customer classes are in different dedicated Act 129 EE&C Programs. Residential customers participate in separate EE&C Programs. The EE&C Program targets, surcharges, grants/rebates and other services for residential customers are entirely separate from the EE&C Programs serving large industrial customers. Similarly, because the targets for the EE&C Program serving large industrial customers are proportionately reduced to correspond to the load of the customers Opting Out, the surcharges, grants/rebates and other services for the remaining customers will stay the same. The net effect: the cost to ratepayers that do not Opt-Out should not change.

However, we appreciate that several parties have concerns over how SB 805 or similar legislation may cause higher costs or other kinds of harm. These concerns include:

- Large Consumers will be Free Riders After Leaving Act 129
- The Opt-Out Will Reduce Energy Efficiency Attainment
- The Opt-Out Will Reduce Funding to Other Large Consumers
- THE OPT-OUT Will Reduce Funding to Small Businesses & Residential Consumers
- THE OPT-OUT Creates Significant Program Administrative Issues
- THE OPT-OUT Reduces Energy Jobs in the Commonwealth

- The Opt-Out Allows Large Consumers to Collect Funds & Leave
- Large Consumers Have A Backlog of Efficiency Projects

We believe that these concerns are based upon misunderstandings, and we address each in turn.

Large Consumers will be Free Riders After Leaving Act 129

Large consumers have been the opposite of a "Free Rider". As noted above, the investments made in Pennsylvania by only eleven IECPA Members since Act 129 went into effect exceeded the funding allocated to Act 129 by all customers across the entire state for the same period. Large consumers have done their fair share to maintain and grow Pennsylvania's economy.

More broadly, the accusation of "Free Rider" is based upon the theory that the large industrial consumers that Opt Out will benefit from the Price Suppression created by the energy efficiency measures implemented by those customers who remain in their EE&C Programs. However, this concern is based upon two flawed assumptions. The first is that large industrial customers that Opt-Out will not implement energy efficiency initiatives. For all of the reasons discussed at length above, this assumption is without merit. The second assumption, called "Price Suppression" asserts that reductions in the amounts of electricity used by any customer reduce the price paid by all customers. This assumption is dubious, at best, as we show.

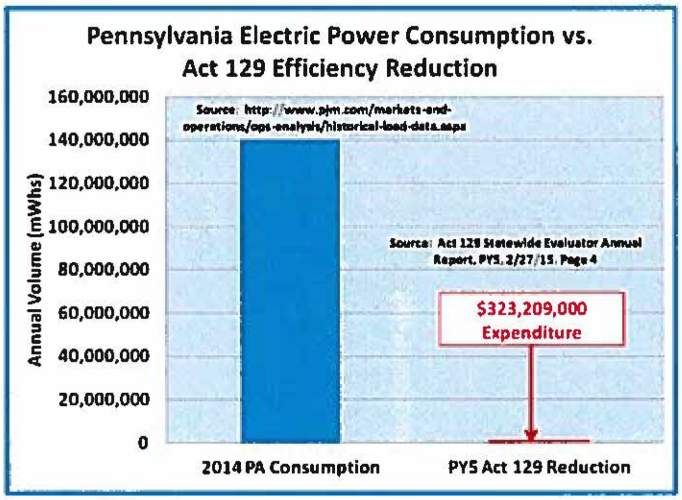
We should first define terms. Demand is a measure of Power or the amount of energy required at any single point in time. Demand or Power is actually instantaneous, but is usually measured on small intervals of time (e.g. 15 to 30 minutes). Energy Consumption is the accumulation of these requirements used or consumed over time. On a graph of power vs. time, Demand is represented by a vertical line or narrow column, while Energy Consumption is represented by a larger area. The units for Demand are Watts ("W") (or kilowatts "kW" or megawatts "MW"), while the units for Energy, which is sometimes shortened to "Energy" are Watt-Hour (W-hr") (or "kW-hr" or "MWH"). Note how the units for Energy kW-hr denote the idea of Demand over time, which corresponds to the area on a graph of power vs. time.

Next, we note that reducing load during time of peak demand does reduce the price for all customers in the grid. This is called Demand Response, which is a valuable service that large industrial customers provide for the grid and for which they are paid[2]. For example, Act 129 Program Year 5 contains a 202 MW load reduction as reported by the State Wide Evaluator (SWE). Load reductions have different valuations depending on the actual time of the reduction; those at peak periods are far more valuable. By comparison, PJM's Emergency Load

[2] In fact, Demand Response is so important that its value is presently at issue in a case now pending before the United State Supreme Court.

Reduction Program (Reliability Pricing Model or RPM) utilized End-Use load reductions of up to a 12,000 MW level during peak market conditions. <u>The end-use sector provides a significant and measurable benefit under this PJM Program that provides multiples of value beyond the Act 129 Program Effect and achieved without the Act 129 Program.</u>

Clearly, Demand Response, the reduction of load in response to high market price caused by high demand, is a valuable tool in improving reliability and reducing the market price during periods of peak demand. However, it is not clear that reductions in energy consumption achieved by energy efficiency have a similar impact on the market price paid by all customers. Energy efficiency, or reducing the amount of energy used around the clock, during periods of low demand and high demand, will not have the same affect on market price as chopping off the top of a market peak via Demand Response. Data from Act 129 Program Year 5 (PY5) illustrates this point. The Blue bar represents the electricity consumption in 2014. The Red bar represents the annual energy efficiency reduction in mWhs gained during PY5. Act 129 produced a reduction from normal Pennsylvania consumption of less than 1%. It is difficult if not impossible to quantify any Price Suppression benefits from this reduction. Other market factors such as weather, fuel prices, generator outages, transmission system operations, etc. can have a far greater effect on energy prices.

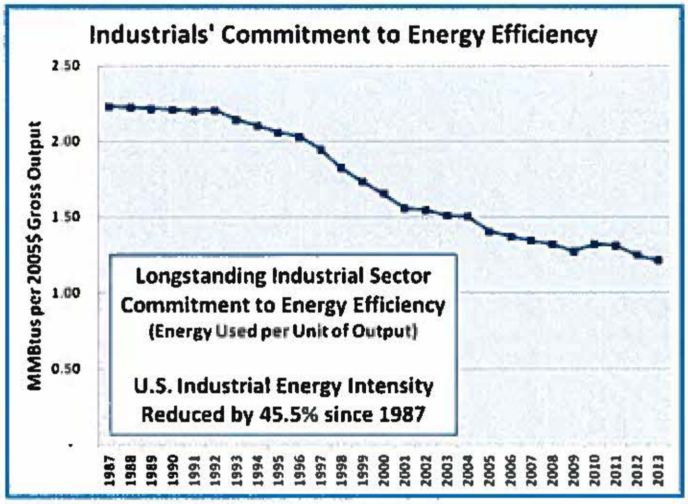


Finally, the Pennsylvania Public Utility Commission (PAPUC) closed the book on the value of Price Suppression when it found insufficient evidence to spend taxpayer dollars to order the Statewide Evaluator to perform a detailed study on Act 129 price suppression effects. The PAPUC stated, *"The Commission does not deny that price suppression benefits may exist as a result of the DR [Demand Response] Programs being offered by the EDCs. However, we agree that a detailed study on such benefits* [arising from energy efficiency] *would be speculative, at best, and is not prudent use of ratepayer dollars."*[3] With this, <u>the PAPUC also strongly confirms that the Opt-Out will NOT produce Free Riders.</u>

[3] "Energy Efficiency and Conservation Program, Final Order" Docket Nos. M-2012-2289411 and M-2008-2069887, Pennsylvania Public Utility Commission, Public Meeting held February 20, 2014 (pp. 31-32).

<u>The Opt-Out Will Reduce Energy Efficiency Attainment</u>

Data from the U.S. Energy Information Administration and U.S. Bureau of Economic Analysis presented in the chart repeated here shows a steady 45% decrease in Industrial Energy Intensity going back to 1987. The behaviors exhibited by large industrial customers over this time are not a function of any federal or state energy efficiency program. Rather, set of the behaviors that produced this data are simply what is required to survive in an increasingly competitive global market. Large EITE businesses need to use energy as efficiently as possible or they do not survive. The Act 129 EE&C Programs did not create the incentive for large consumers to aggressively pursue energy efficiency and giving these same consumers the ability to Opt-Out of these EE&C Programs will not take that incentive away. In fact, in many cases, the funds paid into Act 129 EE&C Program surcharges are funds diverted away from actual energy efficiency projects that the consumer may wish to pursue.



<u>The Opt-Out Will Reduce Funding to Other Large Consumers</u>

Utilities will "Right Size" the targets and budgets within their individual Act 129 EE&C Programs to reflect the consumers that Opt-Out of Phase III and the consumers that remain. This sizing may or may not change the level of funding per project or surcharges. The utilities will fit the Plan the consumers remaining. Therefore, on a project-by-project basis, any reductions will be small.

At the same time, the Opt-Out does move to protect those businesses that made significant investments in the Commonwealth and/or who implemented energy efficiency projects beyond the Act 129 scope or before Act 129 came to be. These "First Movers" should not be forced to subsidize the projects for the "Last Movers" with whom they compete and forfeit the competitive advantage they worked and invested to create.

<u>The Opt-Out Will Reduce Funding to Small Businesses & Residential Consumers</u>

The utilities develop and maintain separate Act 129 EE&C Programs by customer classes, and keep the surcharges, grants and funding pools entirely isolated from one another. As is the case in all ratemaking in Pennsylvania, there is no cross subsidizations between customer classes. Therefore, <u>there is</u>

no way for the Opt-Out to have any impact on Small Businesses or Residential Consumers.

The Opt-Out Creates Significant Program Administrative Issues
The Opt-Out allows a single choice to be performed before the Utility finalizes its Act 129 Compliance Plan. This solution was designed to minimize the impact on Utility Staff planning efforts. Other states providing an Opt-Out allow decisions to be made on an annual basis, a far greater management effort than the one-time selection, and report no resulting administrative hardship.

The Opt-Out Reduces Energy Jobs in the Commonwealth
Energy consulting firms play a critical role in implementing efficiency projects for Residential and Small Business Consumers. These firms do not have a corresponding role with the large industrial consumers. As noted previously, large industrial consumers have access to specialized expertise that is able add value to their complex operations either from internal staff or via long-term consulting relationships that include strict provisions on confidentiality. The more broadly focused energy efficiency consultants available under the Act 129 Programs are usually not employed at large industrial consumer facilities unless the utility hires them to verify the results of an energy efficiency project for which the customer is seeking a grant. Absent these kinds of engagements, which would still exist for those customers who do not elect to Opt-Out, large industrial consumers do not presently provide a significant number of jobs in this market segment. Because one cannot lose something that one never had, it is clear that the Opt-Out will NOT reduce energy jobs in the Commonwealth.

The Opt-Out Allows Large Consumers to Collect Funds & Leave
SB 805, or similarly crafted legislation, eliminates this issue by forcing a consumer to be either 100% in or 100% out of each Phase of the Program. Only those enrolled in their EE&C Program and paying the corresponding surcharges would have the opportunity to apply for grants. A participant will be unable to receive grants in Phase III and then leave the EE&C Program to avoid paying the surcharge costs through the balance of the Phase. This is the same, simple and fair provision that has successfully prevented 'gaming' in Opt-Out programs in other states.

Large Consumers Have A Backlog of Efficiency Projects
The belief that large industrial consumers have large backlogs of cost-effective energy efficiency projects waiting for implantation is based upon two misconceptions. The first relates to the size, scale and lifecycle of projects available to a mature energy efficiency program, while the second relates to the cost of funds to large industrial customers.

Project Size, Scale and Lifecycle: After all the fast, cheap and easy energy efficiency measures have been implemented, the projects that are characteristic of large industrial consumers with mature energy efficiency programs are complex in nature, and require significant time and effort plan, stage, budget and implement. These projects are frequently capital intensive and designed to move entire operations to a more efficient level for years before the capital for another follow-up improvement project can be made available by the corporation. This "lock-out period" is the direct consequence of the corporation's need to avoid the accumulation of debt. Hence, large industrial consumers simply do not have a steady backlog of projects ready to implement, with or without PA Act 129.

<u>Cost of Funds:</u> Investors demand high returns on the capital that they allow the businesses in which they invest to use. In today's market, these investors are able to invest their capital in virtually any venture around the globe. Hence, large industrial consumers that cannot credibly promise high yields on the capital they request will not attract the capital they need to survive. Energy efficiency projects compete for funding against all of the other productivity improvement projects within the same capital budget. The triple imperative to increase productivity while limiting capital spending and avoiding debt results in a required payback time that can be as short as 18 or 24 months. Requiring payback periods this short is equivalent to placing a cost of funds at 15% or 20% or higher. At the same time, those not forced to compete for capital in a global market evaluate energy efficiency projects over payback periods that are frequently as long as 15 years, using a cost of funds at par with consumer lending rates of 9% or 6% or lower.

The assumption that large industrial customers are sitting on large backlogs of cost-effective energy efficiency projects not only ignores the proven, longstanding pursuit of energy efficiency by these customers, it exhibits a misunderstanding of the capital funding mechanisms operating within large, globally competitive businesses. <u>Unfortunately, this misunderstanding is enshrined in the fundamental design of the grant and surcharge mechanisms inside the Act 129 EE&C Programs. The reality is that large industrial consumers do NOT have a backlog of cost-effective energy efficiency projects. The Opt-Out will provide much needed relief to the large industrial consumers laboring under these unrealistic expectations.</u>

V. <u>How Will the EPA's Clean Power Plan (CPP) Impact Energy Efficiency? How will CPP Compliance Impact Electric Ratepayers?</u>

At this time, the precise impact of the CPP on ratepayers is unknown. Most experts are projecting that it will increase electricity costs. It is also interesting to note that, in its final proposal, the EPA no longer requires State Implementation Plans (SIPs) to include a section dedicated to energy efficiency improvement.

Each business will need to determine for itself how the EPA CPP affects their energy efficiency and other corporate strategies, which, we believe, increases the value of the flexibility afforded by the Opt-Out. Businesses with multiple national or international locations will need to make production and investment decisions based on a host of factors, including each State's CPP compliance costs and implementation plan. In any event, we look forward to being a resource to the Committee as all of us press forward and work through all of the complexities and uncertainties associated with the EPA CPP.

CONCLUSION

Pennsylvania's large energy intensive businesses practice energy efficiency as a way to stay competitive and meet the financial performance pressures of our investors. We have demonstrated the strong commitment made to the Commonwealth's economy and citizens over decades – a period much longer than the past six years. After so long, you could fairly say that energy efficiency is in our DNA.

We showed the disconnect between the assumptions underlying the design of Act 129 and the real motives and constraints driving the investment decisions we make. We believe that there is no easy way to fix the EE&C Programs that are so fundamentally flawed in how they relate to large industrial consumers.

The Act 129 EE&C Programs have not helped our efforts to attract new investment and expand business operations in the State. To the contrary, these programs are simply another unproductive cost that we must mitigate by making compromises or reductions in other areas. Most troubling is the fact that we feel compelled to say that we cannot continue to be viewed as a funding source for competitors and others in the state that have chosen to ignore or downplay the value of energy efficiency that we have prized for so long.

Opponents have raised concerns with our proposed solution. We have addressed these concerns, and we have demonstrated that there is no impact on the Commonwealth or Act 129 by allowing the voluntary choice for large consumers to Opt-Out of the Phase III Program and subsequent Phases, if they so choose.

We respectfully request that the Pennsylvania legislature move forward with providing large consumers the opportunity to Opt-Out of PA Act 129 Phase III, and subsequent Phases. This can be done by enacting SB 805, or similar legislation, prior to the October/November 2015. This is the easiest and best opportunity to implement this reform for the next five years.

We ask that you allow Pennsylvania to become the sixteenth state to provide large industrial consumers with the relief of a voluntary Opt-Out from an Act 129 Program.

Thank you for your time and consideration. We look forward to answering any questions you may have.

Industrial Energy Consumers of Pennsylvania

IECPA

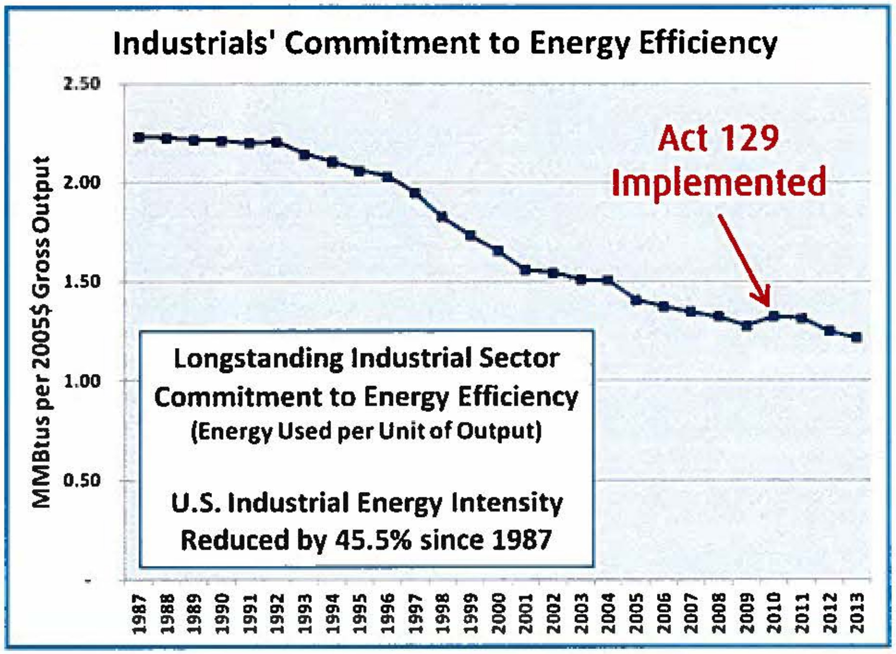
Pennsylvania House Consumer Affairs Committee

PA Act 129 Program Hearing

September 1, 2015

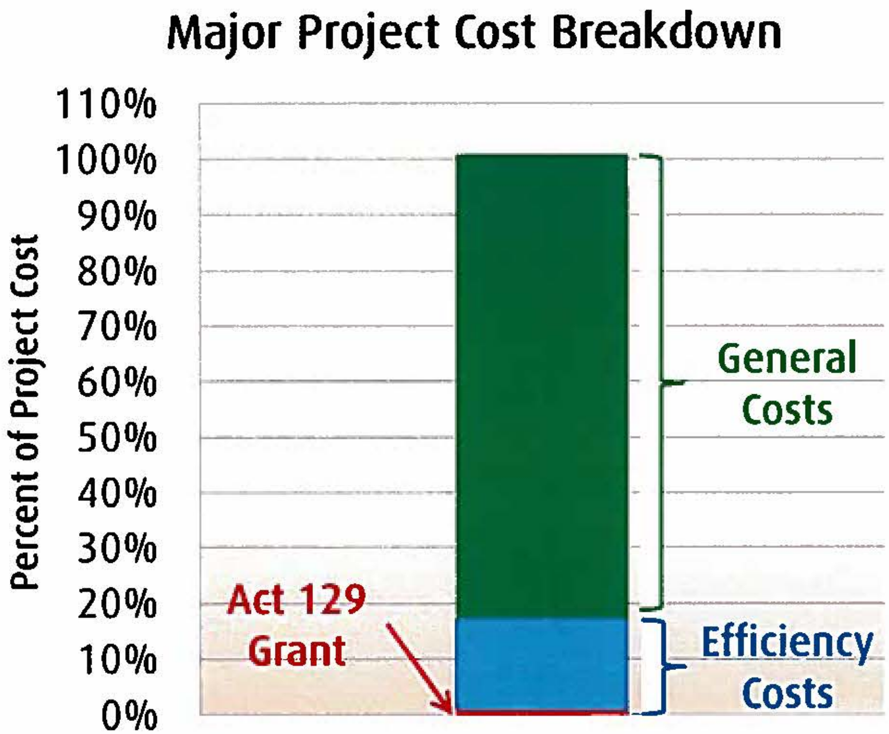
Large Consumers Ahead of Act 129, Seek Voluntary Opt-Out

IECPA



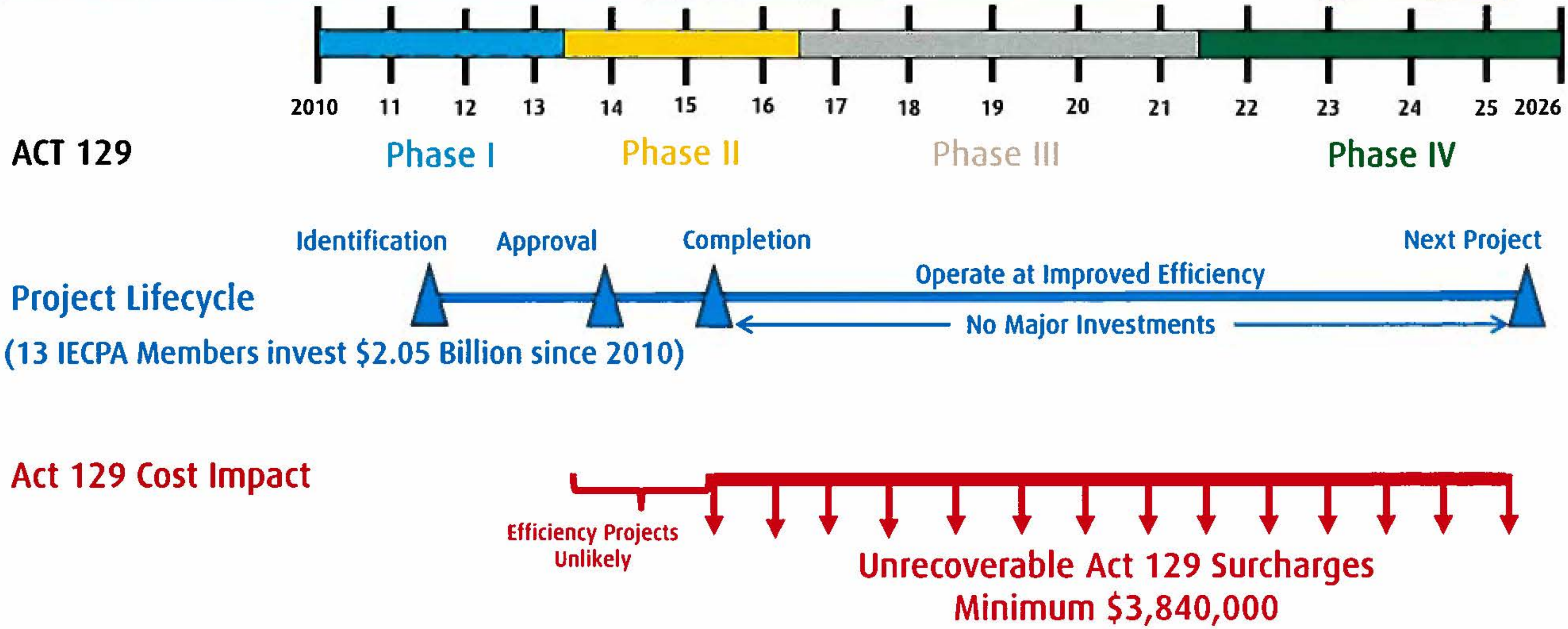
- Large Consumers "live" energy efficiency every day
- Act 129 does not assist our efforts and represents an unrecoverable cost increase
- Act 129 Fix: Request Favorable Consideration of a Large Consumer "Voluntary" Opt-Out from Act 129
- Major and Traditional efficiency projects are not supported by Act 129
- Market conditions at time of Act 129 inception no longer exist

Major Projects Implemented Without Act 129



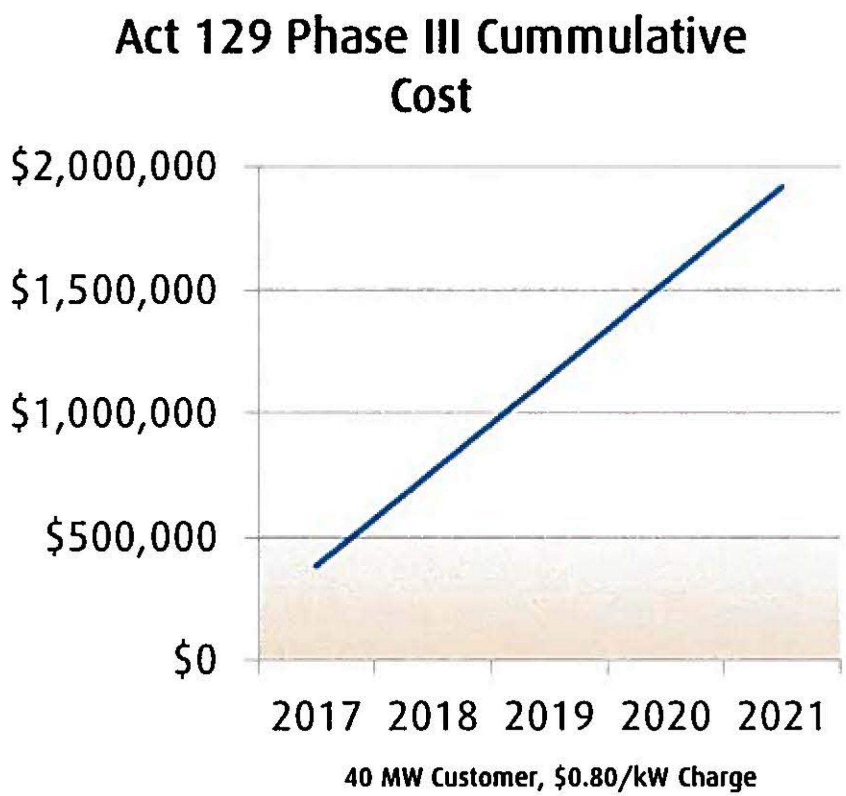
- Act 129 Grant amount of 1% – 5% (If Any) Does Not Influence Project Decision
- Energy Efficiency costs can be only 15% – 25% of Total Costs
- General Costs for Replacements, Maintenance, Infrastructure, Control Upgrades, Expansions, etc. can represent 70% - 85% of Total Costs
- Act 129 can not be fixed to address Major Projects, projects already in-service or incompatible with Act 129 funding.

Act 129 Imposes Significant Unrecoverable Costs



40 MW (40,000 KW) Customer Example
Act 129 Monthly Surcharge: $800.00/MW ($0.80/kW), Current PPL & PECO Rates

Traditional Projects Can Not Recover 129 Surcharges



- Requires 3% Efficiency Reduction per year to Recover Surcharge
- No backlog of Efficiency Projects after 6 years of 129 Phase I & II
- Program Grant caps of ~$500,000 & Project limits preclude cost recovery
- Utilities follow ultra conservative efficiency gains to minimize penalties
- Utilities do not reserve funds limiting valuation of complex projects
- Project creation comes from internal staff expertise

Concerns and Facts About the Opt-Out

IECPA

CONCERNS WITH OPT-OUT

- Opt-Out reduces Residential & Small Business Participation
- Opt-Out will reduce large consumer energy efficiency
- Opt-Out allows consumers to collect grants & leave the Program without paying
- Opt-Out reduces energy industry jobs in the Commonwealth
- Opt-Out reduces funding to large consumer market segment
- Opt-Out allows large consumers to avoid investment in PA or energy efficiency

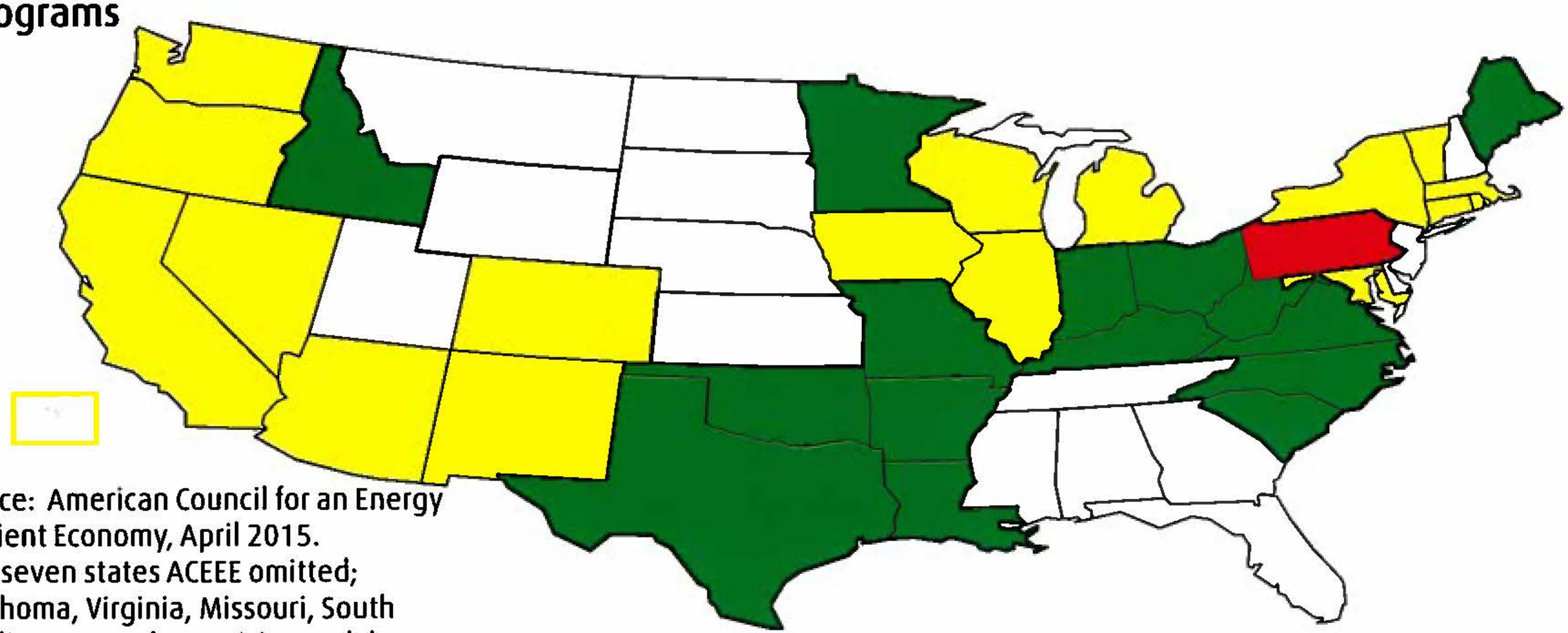
FACTS ABOUT OPT-OUT

- Opt-out is limited to large consumers with NO impact on Residential/Small Business
- Large consumers are highly motivated to energy efficiency with or without Act 129
- One choice given per PA Act 129 Phase BEFORE Phase starts, "All In or All Out"
- Project implementation is not tied to Act 129, therefore no job impact
- Utility programs will be "Right Sized" to provide funding for consumers seeing benefit.
- $1.043 billion of capital investment completed in PA since 2010 Act 129 start

Request Positions Pennsylvania To Join Fifteen States With an Opt-Out Provision

IECPA

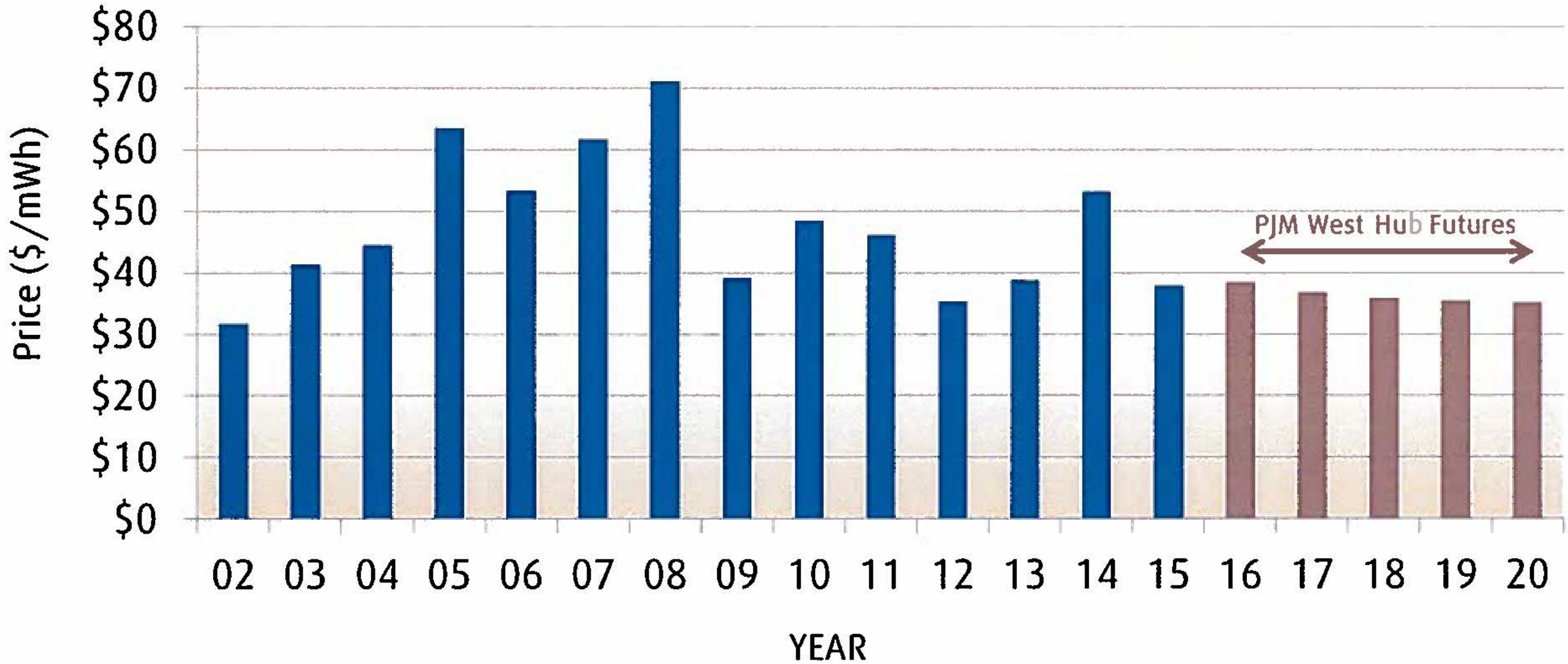
15 states (Green) have a Voluntary Opt Out Provision and 18 States (Yellow & Red) have a Self-Direct Option/Mandatory Participation for their respective Energy Efficiency & Conservation Programs



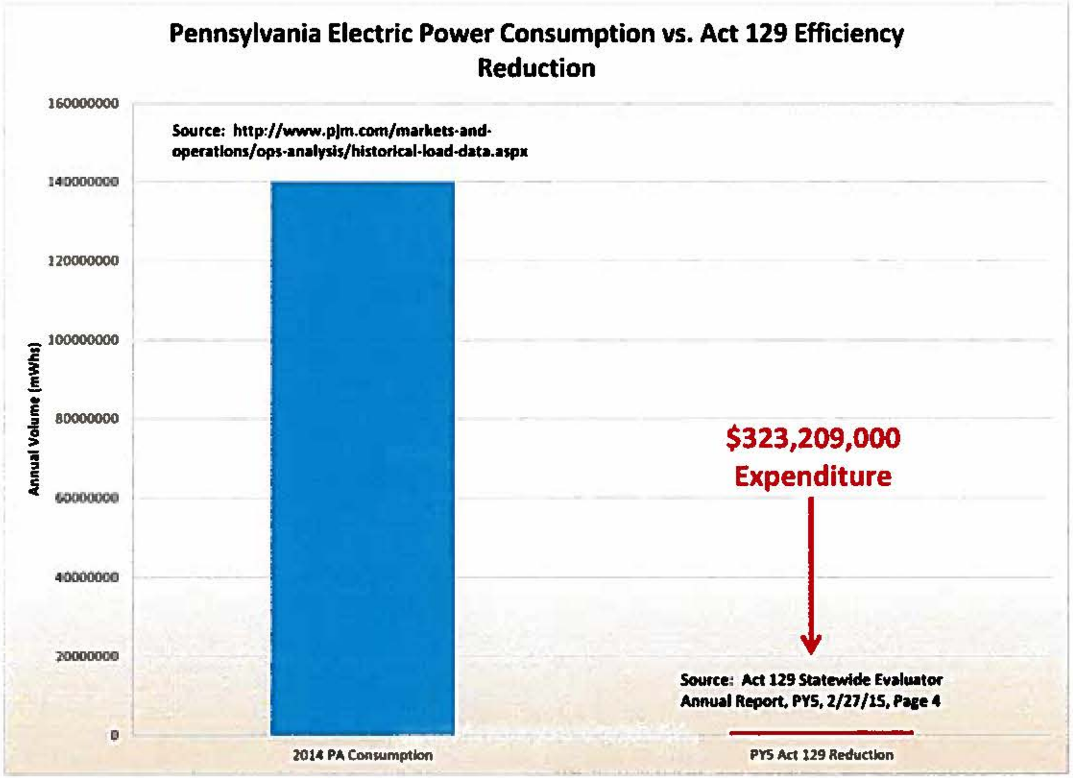
Source: American Council for an Energy Efficient Economy, April 2015.
Plus seven states ACEEE omitted; Oklahoma, Virginia, Missouri, South Carolina, Kentucky, Louisiana, Idaho.

BACKUP SLIDES

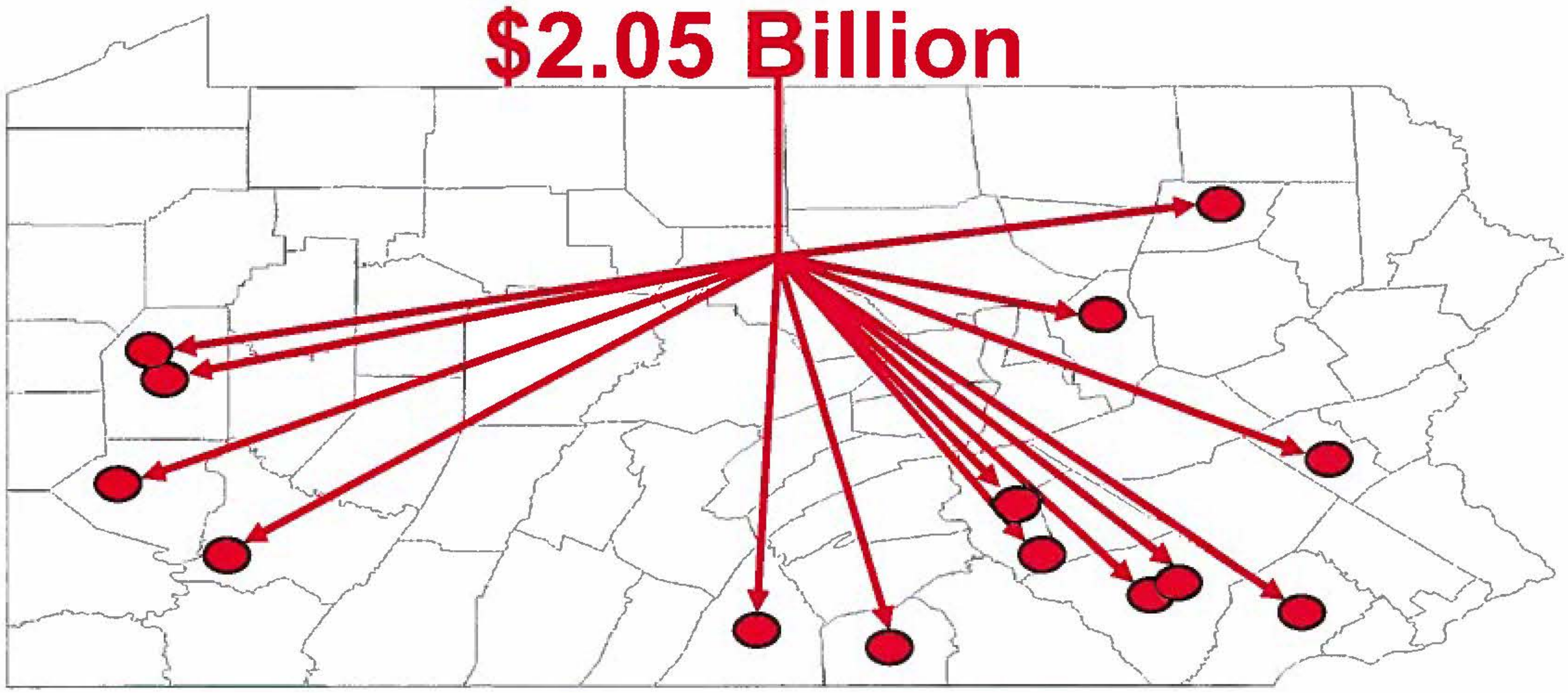
PJM Real Time, Load Weighted Price – Historic & Future



Act 129 PY5 Reduction vs. 2014 PA Consumption



Ten IECPA Member Pennsylvania Investments (2010 – Present)



Z:/BOCES/Operations/Linde Plants/Bethlehem/PA Act 129