HOUSE OF REPRESENTATIVES
COMMONWEALTH OF PENNSYLVANIA

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Act 129
Energy Efficiency & Conservation Provisions

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House Consumer Affairs Committee

Main Capitol Building
Majority Caucus Room 140
Harrisburg, Pennsylvania

Tuesday, September 1, 2015 - 1:03 p.m.

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COMMITTEE MEMBERS PRESENT:

Honorable Robert Godshall, Majority Chairman
Honorable Sheryl M. Delozier
Honorable Eli Evankovich
Honorable Warren Kampf
Honorable Thomas H. Killion
Honorable Kurt A. Masser
Honorable Tina Pickett
Honorable Thomas Quigley
Honorable Todd Stephens
Honorable Peter J. Daley, Minority Chairman
Honorable Tina Davis
Honorable Mark A. Longietti
Honorable Peter Schweyer

STAFF MEMBERS PRESENT:

Amanda Rumsey, Esquire, Counsel
Majority Executive Director

Jane Hugendubler
Majority Legislative Administrative Assistant

Stephen Baldwin
Majority Research Analyst

Ned Smith
Majority Legislative Aide

Elizabeth Rosentel
Minority Executive Director

Jerry Livingston
Minority Research Analyst

Brett Biggica
Minority Research Analyst

INDEX OF TESTIFIERS

MAJORITY CHAIRMAN GODSHALL: Good afternoon. The hour of 1 o'clock having arrived, I'd like to call the meeting to order. This hearing is on the energy and efficiency and conservation provisions of Act 129 of 2008.

Today's hearing will examine how the energy and conservation provisions programs and their implementations are being enacted, and their implementation having evolved since 2008, and the impact of these programs on utility rates.

We'll get started by having the members introduce themselves. We'll start over to my left.

REPRESENTATIVE MASSER: Representative Kurt Masser, 107th District.

MAJORITY CHAIRMAN GODSHALL: Bob Godshall of Montgomery County.

FEMALE VOICE: Hold on. You skipped.

MINORITY CHAIRMAN DALEY: You skipped one.

REPRESENTATIVE EVANKOVICH: Eli Evankovich, representing the best parts of Westmoreland and Allegheny counties.

MAJORITY CHAIRMAN GODSHALL: Okay, we'll try again. Bob Godshall from Montgomery County.

MINORITY CHAIRMAN DALEY: Peter Daley,

representing the best part of western Pennsylvania, Washington and Fayette County.

REPRESENTATIVE SCHWEYER: Peter Schweyer, Lehigh County.

REPRESENTATIVE LONGIETTI: Good afternoon. Mark Longietti. I represent a portion of Mercer County.

REPRESENTATIVE KILLION: Tom Killion, Delaware County.

REPRESENTATIVE DAVIS: Tina Davis, Bucks County.

REPRESENTATIVE QUIGLEY: Representative Tom Quigley from Montgomery County.

MAJORITY CHAIRMAN GODSHALL: Representative Daley, do you have any remarks to start with?

MINORITY CHAIRMAN DALEY: No, Mr. Chairman.

MAJORITY CHAIRMAN GODSHALL: Then we're going to start right in with the hearing. The first testifier is the Energy Association of Pennsylvania, Terry Fitzpatrick, President and CEO.

MR. FITZGERALD: Good afternoon, Chairman Godshall, Chairman Daley, members of the Consumer Affairs Committee.

I am Terry Fitzpatrick, President and CEO of the Energy Association of Pennsylvania, a trade association which is comprised of the electric and natural gas utilities operating in Pennsylvania. With me here today is Donna Clark, who is the Vice President and General Counsel of the association. She's involved in almost a daily basis I think with Act 129 questions with our members and with the PUC.

I'm here today on behalf of the association's electric utility members, which are also known as electric distribution companies. And again, thank you for the chance to be here and to talk about this issue.

The purpose of the hearing is to review the energy efficiency and peak demand reduction mandates contained in Act 129 of 2008. Among other things, this law required electric utilities with more than 100,000 customers to implement programs to reduce energy consumption by 1 percent by May 2011, and 3 percent May 2013. It also requires reduction in peak demand of 4.5 percent in the 100 hours of highest usage by May 2013.

In the event EDCs did not persuade enough of their customers to participate in the

programs in order to meet these targets, the law provided that they were strictly liable for penalties ranging from $1 million to $20 million regardless of fault, with the exception of one EDC that did not meet the interim 1 percent consumption reduction target, EDCs satisfied these requirements.

Following the completion of the Phase 1 requirements, which were set out in the law itself, Act 129 directed the PUC to evaluate the costs and benefits of the program and to direct incremental additional reductions if the programs were cost-effective. The PUC conducted this analysis and ordered additional consumption reduction targets in Phase 2 covering the years 2013 to 2016. The EDCs are on track to meet the mandated targets established for Phase 2.

And, after conducting a second set of market potential studies just this past year, the PUC established additional reduction targets for a Phase 3, which will commence on June 1, 2016, and run through May 31st, 2021. With regard to peak demand reduction requirements, the Commission concluded that the design required in Phase 1 was not cost-effective, so it did not order additional

requirements in Phase 2. However, following an independent study in 2014, the PUC proposed additional requirements for Phase 3 based upon a finding that additional reductions can be designed to be cost-effective.

Act 129 allows electric utilities to recover only the cost of implementing energy efficiency and peak demand reduction requirements, and caps the cost of the combined programs at 2 percent of the utility's total annual revenues as of December 31st, 2006. The law specifically precludes utilities from recovering the revenue that they lose due to customer usage reductions, except through a base rate case where rates may be set on a going-forward basis to reflect the lower usage levels.

Electric utilities spent close to $250 million last year alone on their Act 129 energy efficiency and conservation programs, an amount that is ultimately borne by all ratepayers, and it does not include the cost of paying the statewide evaluator hired by the PUC, or the cost of other utility-run conservation programs such as the Low-Income Usage Reduction Program. This number represents the 5th largest statewide

spending on such programs in the nation.

In order to understand Act 129, it's really necessary to understand the background against which it was adopted. Things were very different in 2008 than they are as we see here in 2015. At the time it was passed, it appeared that the electricity of customers might increase significantly 50 percent or more when caps on the supply charges of electric utilities expired in most of Pennsylvania in 2010 to 2011. This had already occurred a few years earlier in Maryland, Delaware, and in the service territory of a small Pennsylvania utility resulting in rate shock and a vigorous policy debate about the causes of the problem and possible solutions.

I will say I remember that very well. I was on the PUC at the time, and there was a lot of tension surrounding the expiration of the rate caps and what to do about it.

The General Assembly adopted Act 129 as a response to the expected increase in customer bills. However, these expected steep increases generally did not occur. In fact, some customers even saw their bills decrease when the caps came off due to a drop in wholesale electricity prices

at the beginning of the recession.

Since that time, the emergence of natural gas production from the Marcellus Shale has resulted in lower power prices. Wholesale electricity prices tend to follow natural gas prices because gas is increasingly used to generate electricity than was envisioned when Act 129 was passed. So, we have very different circumstances now than was envisioned when the act was originally passed.

With this background in mind, the Energy Association suggests three changes to the requirements of Act 129. First, we suggest that the statute should be amended to change the punitive, inflexible provisions that require large penalties if targets are not met without regard to consideration of the underlying circumstances and the degree of fault by the utility. This could be accomplished by changing -- very simply changing a shall to a may in the law.

We note that no other state establishes standards for energy efficiency and relies on mandatory penalties if a target is missed by even one kilowatt hour. In fact, the number of other states provide positive incentives when a utility

meets or exceeds the reduction required.

Second, Act 129 should be amended to allow utilities to recover the revenue that they lose as a result of their energy efficiency programs through a timely transparent mechanism that is directly tied to the usage actually reduced through utility efficiency programs. This approach is preferable to attempting to make lost revenue determinations as part of a complex, expensive and time-consuming rate case.

The ability of the utilities to recover the lost revenues in rate cases under Act 129 demonstrates that the legislature understood the existence of these revenue losses and the negative impact that they would have on the utility's ability to fund its operations. Recovering these losses through a more timely and transparent mechanism will help to keep utilities financially whole for executing what is a government mandate. And they, therefore -- it will effectively assure that the resources are available to maintain and improve reliability of the grid.

Third, Act 129 should be updated by reconsidering the baseline for funding the program. Currently, the act bases the 2 percent cap on

implementation costs on each utility's total revenue for the year 2006, which includes revenue from distribution and generation supply charges. Utility revenues were higher in 2006 because caps on generation charges were still in place, and most of the electric low was still served by utilities. In contrast, electric generation suppliers now supply about two-thirds of the load in the state.

Because of these factors, as stated previously, Pennsylvania has one of the most expensive energy efficiency programs in the country. The act should be amended to establish a more recent year, such as 2013 as the baseline, or to base cost caps on distribution costs only and not add the supply charges in there.

We also address the Clean Power Plan. I'll give some comments on that now.

In August of this year, the U.S. EPA released its Clean Power Plan, final regulations under the Clean Air Act governing carbon dioxide emissions from existing electric-generating plants. This plan is intended to reduce carbon dioxide emissions in the U.S. by 32 percent from 2005 levels by 2030, and a specific emission rate reduction target of 33 percent has been established

for Pennsylvania.

States will submit plans to EPA as to the strategies they will implement to meet their emission reduction targets, or if they do not submit plans, EPA will implement a federal plan for the state.

The final rule released last month is substantially different from the rule EPA proposed in June of 2014. Over time, there's going to be additional analysis of the cost impact of these changes. Some of the changes in the final rule include moving the starting point for implementation from 2020 to 2022, establishing a ramp up to the final standards and providing a provision for a safety valve for individual power plants in order to protect reliability of electric service.

The Clean Power Plan provides states with different options for achieving compliance. These may include improving the efficiency of coal-generating plants, joining with other states to establish a cap and trade program for carbon monoxide emissions, increasing generation from renewable sources, increasing energy efficiency among consumers of electricity and encouraging

demand reduction programs.

Electric utilities in Pennsylvania are wires companies. They own and operate distribution and transmission systems. They do not own power plants. Accordingly, they're not directly responsible for compliance with the regulations governing emissions from power plants, although, all segments in the electric industry are likely to be affected by these rules in some way.

Additionally, electric utilities will be affected if Pennsylvania increases mandates for renewable energy and utility energy efficiency or demand reduction programs to meet their targets under the federal plan.

With regard to renewable energy, utilities and electric generation suppliers are already required to purchase 18 percent of their supply portfolios from alternative sources by 2021, including 8 percent from renewable sources. With regard to energy efficiency or demand reduction, one of the options Pennsylvania could choose, but there are other options, but one of the options could be to increase the requirements that already exists on electric utilities. And as I've said, utilities are already subject to significant

mandatory requirements under Act 129.

At this point, there's significant legal and political uncertainty hanging over the Clean Power Plan in general. And in the event this plan withstands these challenges at the federal level, there's also uncertainty about how Pennsylvania will seek to comply with the regulations. At this point, electric utilities would ask generally that maintaining and improving the reliability and affordability of electric service be given the highest importance in developing these policies.

In addition, if Pennsylvania relies on increased utility energy efficiency requirements as part of its Clean Power Plan compliance, this further increases the importance of reforming the Act 129 program so that it remakes these programs in a manner that is aligned with the utility business objectives, as are the programs in many other states, and provides incentives to exceed the mandated requirements.

Thank you again, Chairman, for the chance to be here. I'll be happy to answer questions, along with Mrs. Clark.

MAJORITY CHAIRMAN GODSHALL: Representative Quigley.

REPRESENTATIVE QUIGLEY: Thank you, Mr. Chairman.

Thank you for your testimony. Could you speak to, if you're aware of what other states have done to address some of the concerns you mentioned here? Are there other states that are reviewing their previous legislation and maybe making adjustments or amendments to how the companies are impacted by these requirements?

MR. FITZPATRICK: I think states have made various adjustments as they have gone along. But I think -- You know, the important -- The important thing from our perspective is, there were certain things put in our law right at the beginning that did not follow what other states did.

The Act 129 with regard to the utility perspective, it's all stick and no carrot. And really, like I said, that comes from the background, the time at which this was passed. There was a real fear that rates were going way up.

Frankly, I think the electric industry was being blamed for that, like something was wrong. That's why I put in the background about the fact that prices went way down with the

recession, because it was really market forces that were doing this; plus the fact that we had caps in place for all those years. But that's really -- That really explains why these penalties are so heavy and why it's so heavy-handed. And like I said, other states have not done that.

REPRESENTATIVE QUIGLEY: Thank you, Mr. Chairman.

MAJORITY CHAIRMAN GODSHALL: Representative Longietti.

REPRESENTATIVE LONGIETTI: Thank you for your testimony. Just a couple questions.

One of your suggestions, relatively simple change in the law you indicated, although significant effect, would be to change from shall to may. Just so I understand, I'm assuming that is -- Right now it is, I think you said, a strict liability; a mandatory financial penalty if the requirements are not met.

Are you saying, then, it should be discretionary with the PUC, I'm assuming?

MR. FITZPATRICK: Yes, that's exactly right. We would just like the circumstances to be able to be taken into consideration, frankly as they are, for other fines that the PUC levies. You

just look at everything that happened, and there's a variety of factors you look at. We just want the PUC to be able to look at that.

REPRESENTATIVE LONGIETTI: And I assume there probably would be some more language in that suggestion in terms of what would be the factors that the PUC would look at in order to stray from a set dollar amount fine?

MR. FITZPATRICK: Representative, there could be, but frankly, we don't think there necessarily needs to be. I think it's well established that the PUC has factors that they look at in determining a level of a fine. We'd be okay with that. But, you know, if there's some discussion of the factors, we could talk about that as well.

REPRESENTATIVE LONGIETTI: Last question. You indicated in your testimony, wholesale electricity prices tend to follow natural gas prices because there's more and more of a reliance on natural gas and the generation.

Are you be able to provide -- shed some light on why that doesn't seem to be occurring at the current time? At least, I know in the western Pennsylvania market, we're seeing electric rates on

the rise significantly and projected out even into the fall, while natural gas prices seem to be relatively low? Do you have any sense for what's going on there?

MR. FITZPATRICK: Well, they don't -- The prices that you pay at the retail level don't track exactly what's going on in the market in the short term. And, frankly, I don't think we would generally want it to, because those prices can really move around. Well, as we found out in the Polar Vortex in 2014, those prices can really move around very quickly. And if your rate is directly tied to that wholesale rate, you're going to experience a lot of volatility, so there's bit of a lag.

Certainly, the utilities when they purchase electricity for default service, as it's called, where we sell the supply, those contracts are laddered over time, so that the retail price is somewhat tempered or hedged so it's not swinging up and down exactly as a wholesale market. But before too long, you know, if wholesale prices are up, it will tend to exert some influence over the retail price.

REPRESENTATIVE LONGIETTI: It's just

something that I noticed and my constituents have noticed that, typically, during the warm times of the year, you do see some uptick, but it's been, I think, over a 60 percent increase from May until August with the PUC projecting out that instead of a tailing-off in September as it usually does, that it's going to continue to rise, so -- A little bit of a concern there.

REPRESENTATIVE LONGIETTI: Okay. Thank you.

MAJORITY CHAIRMAN GODSHALL: I'd like to ask a question on the implementation of the energy efficiency program. As you said, you spent close to 250 million last year alone for the energy efficiency program, which is now really going into its 8th year.

Do we have any idea what we spent totally in that period of time, and what offset there would be from the conservation program to the average home buyer --

MR. FITZPATRICK: I think --

MAJORITY CHAIRMAN GODSHALL: -- home dweller?

MR. FITZPATRICK: I think the total cost of the program that have been borne by all

ratepayers is over a billion dollars. I think about 1.1 billion. The total cost of everything that's been done under Act 129, which includes a contribution from the customers themselves, I think it's probably more like 1.7 billion that's been spent up to this point.

Now, there are studies that have been done, though, that -- That's the amount that's been put out for this. But there are some benefits from it and there have been studies of the cost and benefits of it. A lot of really technical analysis; a lot of time goes into evaluating this, and the studies have shown the amount spent to be cost-effective. So that's one way to look at it.

From the standpoint of individual customers, I know you're going to hear some testimony on this from the business community. There are other ways to look at that because a lot of people have already put out the money for these things, and they don't think they should continue to pay because they feel like they're just paying and not getting benefits back from the program.

And I think, frankly, a lot of folks too would rather make up their own minds about where they can best spend their resources and not

have somebody else tell them that it's really to their benefit to give more money for a government program.

MAJORITY CHAIRMAN GODSHALL: Well, if stiffer requirements coming along in this last tier here, will that increase also what we're looking at here as costs, program costs?

MR. FITZPATRICK: Yes.

MAJORITY CHAIRMAN GODSHALL: Substantially or --

MR. FITZPATRICK: I don't know if we have a projection. Well, I think, generally, we're probably going to be spending upwards of $200 million a year. The cap level under the act, it's set on one baseline year 2006. That cap level I think is about 245, $250 million a year.

Now, the companies won't necessarily spend that much to get the targets. If they meet the targets, they won't continue to spend that much. But that's -- That's about what it could be.

MAJORITY CHAIRMAN GODSHALL: So we're looking at -- Ma'am, do you --

MRS. CLARK: I was just going to say, it's very consistent from year to year, so the companies can spend up to the capped rate. They

don't have to spend up to the cap rate to meet the target, but the 250-million odd number that Mr. Fitzpatrick mentioned is consistently the number that's spent year in and year out based on the statute and the cap as it presently stands.

MAJORITY CHAIRMAN GODSHALL: Thank you. Representative Evankovich.

REPRESENTATIVE EVANKOVICH: Thank you, Mr. Chairman.

Very briefly, Mr. Fitzpatrick. Based on the requirements of Act 129, what do you estimate the net impact to consumers in the State of Pennsylvania has been as a result of these requirements? Have there been -- Have there been any reliability issues, number 1?

And number 2, what do you estimate the cost? Because all the related costs are being borne by consumers or by the electrical distribution companies themselves. Can you help me understand what that net impact has been over the life of Act 129?

MR. FITZPATRICK: Well, the -- As I said, there's a lot of analysis that goes into the cost and benefits. I would answer you this way, Representative. The amount that's spent we know.

It's 250 -- about $250 million a year; over a billion since the program was initiated. That you know.

Now, some customers actually participate in the programs through getting lighting systems, other benefits, other programs. They make some contribution, but then some of that cost is offset by the program. So clearly, those customers directly benefit in that way.

The other customers who aren't participating get, at best, indirect benefits. And that's the subject of the technical analysis that goes on with the statewide evaluator to determine how those other customers or benefits through reducing market prices, et cetera.

REPRESENTATIVE LONGIETTI: Do those customers see an increase in their electricity costs to begin with before they would make the investments to change their energy efficiency within their footprint?

MR. FITZPATRICK: Well, they do pay for this program through the bills, yes.

REPRESENTATIVE LONGIETTI: So just one last follow-up.

MR. FITZPATRICK: It's not -- Customers

usually aren't aware of it because it's included in the distribution charges. It's not split out in the bill.

REPRESENTATIVE LONGIETTI: In my time in private industry, I helped manage one of these Act 129 implementation programs, a large manufacturer. The quick question that I have is that, what do you say -- do you think there's an inequity exists between companies that were energy efficient to begin with? Then Act 29 -- Act 129 comes in, now they're essentially paying for the programs you say through their bill and maybe can't, perhaps, get that money back because they've already installed the lighting. They've already installed the variable frequency drives throughout their facilities.

Do you believe that -- Do you believe that there's an inherent inequity in the program? Is that something that we should look at possibly changing in the future as well?

MR. FITZPATRICK: You know, I've heard that and I understand the logic of it. I can't say I focused on it enough to say whether I think it has validity or not. I know we're going to hear from the industrial customers talking about that

later.

MAJORITY CHAIRMAN GODSHALL: Thank you very much for your testimony. I appreciate your comments.

MR. FITZPATRICK: Thank you, Chairman.

MAJORITY CHAIRMAN GODSHALL: Number 2 on the agenda is missing at this point due to transportation problem, so we're going to number 3, which is the Pennsylvania Chamber of Business and Industry, Kevin Sunday, Manager, Government Affairs.

MR. SUNDAY: Good afternoon, Chairman Godshall, Chairman Daley, members of this committee.

My name is Kevin Sunday, Manager of Government Affairs to the Pennsylvania Chamber of Business and Industry.

The Pennsylvania Chamber is the largest broad-based business advocacy association in the Commonwealth. Our members are all of sizes, crossing all industry sectors throughout the state. Thank you again for the opportunity to testify on behalf of our members; some of whom generate electricity, and some of whom deliver it, and all of whom use it.

The competitive energy costs that we see in Pennsylvania for commercial and industrial sectors have helped to make the state more attractive to new and expanded investment which, in turn, leads to job creation. As the members of this committee are aware, Pennsylvania's economy faces numerous challenges, and we should continue to pursue policies that play to our strengths, which, in this case, is a diverse, competitive energy portfolio that encourages businesses to invest in Pennsylvania.

Based on the most recent monthly data available from the federal Energy Information Administration, average commercial electricity prices in Pennsylvania were lower than that of 29 other states, and average industrial electricity prices were lower than that of 33 other states. But, unfortunately, the private sector has been forced to expend considerable amounts of capital to comply with alternative energy and energy efficiency mandates over the past decade.

The cost of complying with AEPS mandates have dramatically increased over the past seven years. Over a five-year period, between 2008 and 2013, total AEPS requirements increased from

5.7 percent to 10.2 percent, or slightly less than double. However, as Table 1 in the testimony shows that cost of compliance increased from slightly more than $1 million to more than $54 million, the PA Chamber believes it's reasonable to expect cost to continue to climb as the alternative energy mandates increase, and we applaud any efforts by the Chairman and members of this committee to inform consumers of the cost of these mandates.

Legislation requiring energy efficiency and curtailment of peak usage has also cost Pennsylvanians and the regulated utilities heavily. PA PUC report issued in 2014 identified the total costs of Act 129 requirements between 2009 and 2013 as more than $1.7 billion. In 2012, the PA PUC set new incremental targets for consumption reduction for each EDC, ranging from 1.6 percent to 2.9 percent. Spending by the utility companies to comply with these mandates is capped at 2 percent of their 2006 revenues, as previously discussed. That amounts to approximately $245 million a year.

It can then be reasonably projected that over the next three years, utilities will spend roughly an additional $735 million to comply with the new targets, all of which will be borne by

ratepayers. And according to a 2014 analysis, Pennsylvania's energy efficiency requirements obligate the 5th highest spending for such mandates in the country.

It's important to keep in mind that while Pennsylvania may have competitive industrial and commercial electricity costs on a statewide average basis, individual company's circumstances vary widely, depending on the nature of the company's operations, the service territory the company operates in, the company's ability to negotiate delivery of electricity from suppliers, and the timing, frequency and intensity of their energy use.

In short, companies, whether they are large or small, and whether they are publicly traded or privately held, having inherent incentive to reduce energy costs to improve profitability and competitiveness.

Act 129 mandates have also had the effect of adding tens of thousands of dollars a month to trade-exposed energy intensive manufacturers, diverting significant amounts of capital away from expanding their workforce, investing in R&D, or generally being competitive on

a global basis.

The additional fees and surcharges imposed by utilities on commercial and industrial customers to satisfy these government mandates can in many cases appear to function as an additional tax or fee on energy usage, or an outright transfer of capital to a business's competitors, in many cases without direct benefit to the company paying the surcharges and fees.

Proponents of Act 129 will point to the PUC's Total Resource Cost test that has, to date, calculated a net-positive economic effect of the Act 129 compliance plans. However, the TRC test looks at aggregate economic effects of each utility's plan and not the individual circumstances of each commercial and industrial company paying into the Act 129 programs. There are, in many cases, winners and losers as a result of these plans.

With that in mind, the Pennsylvania Chamber is willing to take part in further discussions surrounding mechanisms that allow commercial and industrial consumers to opt out of Act 129 plans, with enough time to allow utilities to plan for the implications of their exit.

Utilities themselves remain in a precarious position under the current structure of Act 129, forced to pay severe financial penalties or find a way for customers to use less and less of the utility's core service--providing electricity. The PA Chamber is willing to support thoughtful, considerate efforts to realign the penalty provisions of Act 129, including making penalties discretionary and adjusting the ceiling and floor provisions of the penalties.

Further, the chamber is also willing to support a more incentive-based structure for utilities, and consumers to achieve energy efficiency improvements.

In regards to the Clean Power Plan, as was previously discussed, we saw the final version released a month ago. The mechanics and structure of the rule has changed significantly, and not the least being one of the proposed rules so-called building blocks for energy efficiency was removed. EPA recognized extensive legal concerns that a number of commentators raised regarding the use of government encouraging reduction and energy consumption to achieve emission reductions, and that energy efficiency building block was removed.

However, EPA will allow states to implement energy efficiency programs as part of their compliance plans, but only projects installed after 2012 will generate compliance credits. And what that means for us is, any projects that took place before 2012, and any costs that was incurred by them, which is about $1.3 billion will not count towards Pennsylvania achieving its requirements.

EPA has also provided the option for an early incentive program in the form of additional compliance credits for states that implement energy efficiency measures in low-income communities prior to the start of the 2022 compliance deadline.

However, before any legislative discussions take place regarding whether to implement additional energy efficiency programs to comply with the Clean Power Plan, the PA Chamber first urges the General Assembly to review the deadlines imposed on DEP and the General Assembly under Act 175 of 2014. This act provides for legislative review of the state's compliance plan under prior submittal to EPA, and it would behoove all parties involved for the General Assembly to ensure that the deadlines in the act reflect the new deadlines in the rule.

Further, it is also in every stakeholder's interest that the Governor's Office and the General Assembly support efforts to stay the implementation of these rules until a number of the legal questions surrounding the rule are resolved.

Once a compliance plan is submitted to EPA, EPA is going to either approve it, at which time it becomes federally enforceable and vulnerable to third-party litigation; or deny it, at which point the implementation of the state's air-quality program, in part, can be taken over by the federal government perhaps immediately.

In short, before leaders in the legislative and executive branch lock Pennsylvania into a compliance strategy, let's first be sure that the goal proposed by EPA and the path the state proposes is legally sound.

Thank you for your time, and I look forward to any questions that you might have.

MAJORITY CHAIRMAN GODSHALL: Representative Evankovich.

REPRESENTATIVE EVANKOVICH: Thank you, Mr. Chairman.

Kevin, would you be willing to address

the question that I asked the previous testifier about the inequity in the system as it pertains to business customers who are using the power but under Act 129 requirements? So, the example being, those that were energy efficiency in the first place are now penalized because all the lying fruit has been picked.

And just one follow-up question, please?

MR. SUNDAY: Sure. I think first, generally, businesses don't need to be told by the government it's a good idea to save money on energy. We're under tremendous pressure all the time to cut costs.

But there is an inherent inequity. There's only so far the cost benefit for doing upgrades at your facility makes sense. And beyond that, it's money wasted.

But inescapable is the surcharges under Act 129, the customers have to pay. In many cases, that money is going to get rerouted back out to other programs; sometimes even the business's own competitors.

REPRESENTATIVE EVANKOVICH: Just a very brief follow-up. I believe you mentioned in your testimony, the estimate is that $1.7 billion was

spent on compliance from 2009 through 2013. Billions in private money are a lot different than billions in public money.

Do you have an estimate as to where that $1.7 billion was spent? In other words, where did these companies spend $1.7 billion? Who benefitted from these Act 129 -- these expenditures as a result of Act 129?

MR. SUNDAY: I don't have that information immediately available. I do know that PUC publishes reports that sort of summarize the programs year by year. We can look into that and get back to you, if you'd like.

REPRESENTATIVE EVANKOVICH: In general, is it going to companies that sell lighting? Are they going to companies that sell different types of drives? I mean, where is that money being spent?

MR. SUNDAY: It would be a combination of the companies themselves that have projects, and certainly they're going to turn to vendors and consulting firms who themselves are in the business of providing those services.

MAJORITY CHAIRMAN GODSHALL: I appreciate, especially the information pertaining

to the penalties. The penalties, if you don't comply at all, is practically the same as if you comply and miss it by a thumbnail, which doesn't make sense at all. I'm not sure what we did when we put that in the act back in '08.

Anyway, thank you for -- And we'll be in touch. Thank you for your information.

MR. SUNDAY: Thank you.

MAJORITY CHAIRMAN GODSHALL: Next on the agenda is Gladys Brown, Chairman of the Pennsylvania Public Utility Commission.

COMMISSIONER BROWN: Good afternoon. I want to thank you, Chairman Godshall, and also thank you, Chairman Daley, my Brownsville connection, for giving me the opportunity to come and testify today about the energy efficiency and conservation programs under Act 129.

I do want to introduce my staff person that is with me here, Matt Wurst. I was able to convince him to come over from our Bureau of Technical and Utility Services. He has a lot of background on our energy efficiency programs. If we get into some technical questions, we can turn that over to him.

I've already given you a copy of my

testimony, so I know that you have that, and I will just summarize today for you.

So the heart of the discussion is the concept that promoting increase energy efficiency, along with the enhanced conservation program, serves the public interest; not only does increase energy efficiency help to reduce peak demand, which can help curb the price spikes and price volatility accompany these spikes; but also, it helps to reduce overall consumption as a mechanism to ensure reliable and affordable electric service for residents and businesses.

Also, these energy efficiency and conservation efforts provide a number of additional benefits such as decreasing the stress of our power grid, lessening the need for additional investments in power generation and transmission systems, and helping to reduce carbon emissions.

Since the passage of Act 129, the PUC has focused on developing a multi-phase process to reduce overall power consumption and peak consumption by the seven electric distribution companies that are subject to the requirements. And I say seven because the statute requires that it's over a certain percent -- over a certain

number in terms of the customers that they serve. So it's seven of the electric distribution companies that meets that requirement.

The EDCs must submit annual plans to the PUC which detail how they will meet the reduction goals. Annual cost for the energy efficiency and conservation programs are capped; not to exceed 2 percent of the 2006 revenues. The effectiveness of each plan is subject to a Total Resource Cost test by the PUC which determines whether the potential benefits or avoided costs are greater than the cost of implementing the energy efficiency, conservation measures.

The EDCs can recover costs of implementing their energy efficiency plans via a surcharge, which are reviewed and reconciled for any over or under collection, but they cannot use the surcharge to recover lost revenue, and I emphasize that. They must seek commission approval in a base rate case to address any revenue lose because of the reduction -- because of reduced consumption.

Under Phase 1 of Act 129, it called for reduction in total consumption by 3 percent, and a reduction in peak consumption by 4.5 percent using

2010 levels. Collectively, the seven EDCs saved 5.4 million megawatt hours of electricity per year during Phase 1, and all of the EDCs exceeded their consumption savings and peak demand reduction goals.

Translated in dollars -- And I think I heard this question before, so translated in dollars and cents over the four-year period of Phase 1, the total cost of implementing energy efficiency and conservation efforts was $1.75 billion. The total avoided cost for consumers over that same period were calculated at $4.2 billion. In other words, consumers saved $2.40 for every one dollar that was spent on energy efficiency and conservation programs during Phase 1.

Additional benefits included the leveraging of conservation service providers by EDCs to implement various programs and measures in their plans, and measures in their plans have resulted in the Commission registering approximately 140 businesses as CSPs to this date.

The carryover of consumption reductions into wholesale markets is helping to mitigate peak wholesale energy prices.

In addition, low-income customers are now availed additional efficiency measures above and beyond existing programs like LIURP.

Lower consumption is reducing the capacity utilization of the distribution, transmission and generation systems and is, therefore, helping to avoid additional investments in these facilities.

Last, these measures are providing associated -- are providing associated emissions reductions in carbon monoxide, sulfur dioxide, nitrogen oxide, and fine particulate matter.

In Phase 2, because of the success of Phase 1, the PUC implemented a three-year Phase 2 period, which we are currently in that period, which ends in 2016 -- June of 2016. Based on the Commission's studies of potential savings, new requirements were set for each of the EDCs. These Phase 2 reduction targets range from 1.6 percent to 2.3 percent based on the potential of each of the EDCs to further reduce their demand.

Because Phase 2 is still underway, we don't have complete numbers for you for that time period, but we do know the cost for the first year was approximately $324 million, generating an

estimated benefit of $559 million.

So, in other words, consumers save $1.70 for every one dollar that was spent on efficiency and conservation programs during the first year of our second phase.

The Commission continues to monitor the progress of each EDC during Phase 2, and the initial data seems to indicate that the majority of the savings' targets are being met.

In Phase 3, earlier this year, in June of this year, the Commission issued its final implementation order for Phase 3 of Act 129, building upon all the lessons that we learned and the data collected to date. Phase 3 covers a five-year period with new targets for each of the EDCs based on numerous studies by the Commission. The overall reduction ranges from 2.6 percent to 5 percent, depending on the potential savings in each EDC territory. The peak demand reduction targets also varied depending on the potential for each territory ranging from zero percent to 2 percent.

A major focus of Phase 3 is behavioral programs. Efforts to help residents and businesses better understand how much power they are using and then identify ways that they can modify that usage

to conserve power and save money.

It is important to note that as we move forward, make many basic steps such as the installation of energy efficiency light bulbs have already been occurred. To generate further significant reductions, we need to explore more comprehensive efforts, like, combined heat and power, whole home audits and the installation of energy efficiency appliances.

I know that you had asked -- the committee had asked if there were any recommendations that the PUC would have in terms of making changes to Act 129, and we do have some recommendations. Actually, you probably heard some of them from the Energy Association here today. Based on the Commission's experience with Act 129, we'd like to share these five recommendations.

The first one is dealing with the cap of the budgets for EEC programs, and because it is based on 2006 revenues of the EDC, our recommendation, we believe these budgets should be allowed to increase based upon the rate of inflation. I know at the time when we were working on Act 129 -- I can say we because I was a staff person at that time in the Senate. We were looking

at the more recent numbers and that was 2006.

The second recommendation is that the act currently requires a minimum penalty of $1 million for noncompliance, even if an EDC misses its target by only one megawatt hour. So, the Commission is recommending language that mandates only the upper limits of the penalty would be beneficial. So, if it's only one megawatt hour, we wouldn't be looking for a 1-million-dollar penalty; probably giving us more discretion as to what the appropriate penalty would be.

The third is the Total Resource Cost revenue test. It is -- currently allows for a 15-year period of costs and benefits. But many resources, such as solar arrays or combined heat and power facilities actually lasts longer than the 15 years. So, we're recommending that allowing costs and benefits to be evaluated over the entire effective life of the system would be more helpful.

Our fourth recommendation is dealing with the review; the time period for review of the EDC's proposed plan. Currently, that time period is 120 days. Our recommendation is to make that recommendation 180 days that would allow us more time for a more thorough review.

And our last one is that the act requires the filing of annual reports by the Commission. We believe that in order to allow more data to be compiled and analyzed in these reports, it would be more valuable to extend the reporting period and switching it to every five years instead of annually.

In addition to our recommendations, we also do want to talk to you about the CCP. As you know, the Clean Power Plan, the final rules came out August 3rd of this year. The Environmental Protection Agency filed these rules after a long lengthy review of their proposed regulations, in which the PUC also submitted comments during that time.

The overall goal of the E -- is a national EGU carbon reduction of 32 percent by the year 2030. I think you already heard testimony of that by others that were testifying. And also, you've already heard that the target for Pennsylvania is 33 percent by the year 2030.

So, we've been closely following the rule making and also have been following comments, as I stated before, in the proposed states. But we've also reached out to DEP and they've reached

out to us to discuss the fact that we would like to be a part of the discussion and making sure that they address our concerns of reliability and affordability, which is very important to us at the Commission. We respect the fact that they will have the primary role in terms of this plan that they will be submitting, but we also know that the General Assembly will be involved in the process as well.

We have already been working with, as I stated before, DEP, but we're also one of the four states part of a pilot program with the National Governor's Association, so we've been working with that, and also reaching out to PJM to review -- They are reviewing many facets of the plan. So, we are looking forward to all of that.

In terms of any other additional information, we're reviewing all the 1500 pages. I know that the General Assembly may have additional questions for us. But, at this point, we just feel it's premature to even discuss what the impact would be on the consumers at this time.

In closing, I do want to state that Act 129 has been very successful. We believe it's been a successful story; helping to advance and evolve

Pennsylvania's approach to energy efficiency. The Commission is proud of what has been accomplished to date, and we are confident that these efforts will continue to benefit our consumers and our state.

So, at this time, I am happy to answer any questions from the committee.

MAJORITY CHAIRMAN GODSHALL: Chairman Daley.

MINORITY CHAIRMAN DALEY: Thank you, Mr. Chairman.

I just want to commend you, Chairwoman Brown, on your new elevation as the chairperson of the Public Utility Commission.

COMMISSIONER BROWN: Thank you.

MINORITY CHAIRMAN DALEY: I think you are the first female to occupy that position as --

COMMISSIONER BROWN: I'm not.

MINORITY CHAIRMAN DALEY: You're not?

COMMISSIONER BROWN: No. Linda Taliaferro back in 1979 or '80.

MINORITY CHAIRMAN DALEY: Oh, you're the first female from Brownsville.

COMMISSIONER BROWN: I am.

MINORITY CHAIRMAN DALEY: Again, I don't

think Linda Taliaferro was from western Pennsylvania, but I may be wrong. But, congratulations, and I'm looking forward to working with you.

COMMISSIONER BROWN: Thank you.

MAJORITY CHAIRMAN GODSHALL: I just want to say that I do look forward to working with the PUC in the development of what we -- as we go along here on Act 129. I do appreciate the close working relationship we've had with the PUC and your administration.

I wanted to ask specifically, I know it's easy to figure out cost because it's how much somebody spent. But, at the same time, how do you figure the benefits, which was part of my question earlier today? Either the benefits -- The cost is one thing, and the benefits -- How do you figure the benefits out?

COMMISSIONER BROWN: I'll let Matt answer that question.

MR. WURST: Thanks for the question, Mr. Chairman. It's a good point. The costs we can track directly from the revenues that the EDCs recover via their bills.

As far as the savings projections, we

use the Total Resource Cost test, which is kind of the test that the EDCs must show is passed in front of the Commission before the plans go into effect, and they are based off of different indices; whether it be future's market indices for wholesale energy or natural gas which you can convert to electricity cost. Some of the costs are really pretty easily tracked, like avoided cost of distribution because we know what the EDC's distribution costs are.

Ultimately, there is some speculation that comes into the TRC test, but it's probably one of the best ways to try to evaluate a cost-benefit ratio with the information that you would have when you're looking at an investment. But, ultimately, it is based off of some market indices that could change over time.

MAJORITY CHAIRMAN GODSHALL: How much is subjective in that?

COMMISSIONER BROWN: Well, I'd say very little, but there's always something when you're looking at the calculations. I think the TRC requirement is part of the statute that was in Act 129 that we look at, so we're basing it upon what the statute requires.

MAJORITY CHAIRMAN GODSHALL: Representative Evankovich.

REPRESENTATIVE EVANKOVICH: Thank you, Mr. Chairman. I promise I'm done asking questions.

Madam Chairwoman, this is a complicated subject. I'm trying to wrap my head around some of the terms that were used.

You spoke in your testimony in terms of reductions. Is it fair to say that those true kilowatt hours, megawatt hour reductions were customer avoidance megawatt hour reductions, or were they -- Is that a fair -- Is that a fair assessment?

In other words, is reduction at the customer level, customers didn't end up purchasing that power?

COMMISSIONER BROWN: Yes.

REPRESENTATIVE EVANKOVICH: And, did the -- We also heard about reductions in terms of carbon emissions, things like that. Did the generators see a likely -- a similar drop in power production, or do they keep their power production levels the same and sell that power outside of Pennsylvania consumers?

COMMISSIONER BROWN: I'm not sure we can

answer that question for you.

REPRESENTATIVE EVANKOVICH: My question on the reductions in terms of cost avoidance, I think was the term that you had used. There's an interesting kind of dynamic whenever we're dealing with peak demand. You can have true-load shifting, which is one of the reasons why I wanted to hear from EnerNOC today, in which case, you know, we asked the -- the EDC isn't distributing the electricity.

But if you have an on-site generator, you're really just shifting the load. You're not actually reducing the amount of electricity used. So, the numbers that we're talking about aren't really inclusive of that load-shifting number.

But, is that -- Is the power savings predominantly because of the peak demand curtailment? In other words, a company shuts off a high energy usage part of their manufacturing process, or whatever, during peak demand times and, thereby, preventing every other customer -- that customer going to wholesale market.

COMMISSIONER BROWN: I'm not sure I have that breakdown for you, but --

MR. WURST: I can answer that.

The majority of the savings is from 24/7 continuous energy efficiency measures and not peak demand. In the current phase, it's actually all in energy efficiency measures.

But, looking at the Phase 3, the Commission has established new targets for additional peak demand components, but they are a minority component of the programs.

REPRESENTATIVE EVANKOVICH: So the majority of the reduction -- If I can just paraphrase what you said. The majority of the reductions are outside of peak demand curtailment by consumers?

MR. WURST: Yes. And it's an interesting concept because, when you do 24/7, like installing efficiency light bulb, essentially, you still are reducing peak demand, but you're also reducing energy consumption 24/7.

REPRESENTATIVE EVANKOVICH: Okay. Thank you.

MR. WURST: You're welcome.

MAJORITY CHAIRMAN GODSHALL: How much additional of the -- is that -- the new requirements going to cost over and above what tier 2 cost?

COMMISSIONER BROWN: You mean Phase 3?

MAJORITY CHAIRMAN GODSHALL: Phase 3, yes.

COMMISSIONER BROWN: That's information that -- We don't have those figures for you now. Even with Phase 2, since we're still in the middle of it, we were only able to give you the first year. So that's not information that we would have at this point.

MAJORITY CHAIRMAN GODSHALL: You have no estimates of --

MR. WURST: Well, I can add that there's a hard ceiling cap on the budget. And so, the way the Commission designed Phase 3 is that, the budget cap is still the same so it won't increase the cost, but now we're reallocating investments back into peak demand shaving. So it's more of reallocating investments and not increasing the overall budget of the plans.

COMMISSIONER BROWN: I mean, you heard testimony before, from the other testifiers, it's no more than $250 million a year. That's the cap. I did hear one of them say that it's been consistent each year, which is not necessarily the case. I think I testified to some of the numbers

were -- in one year was $174 million.

So, we're keeping the cap in place, but we can't give you the actual number in terms of what would be the projected amount that they would spend each year.

MAJORITY CHAIRMAN GODSHALL: How does that relate to what other states are costing their industry?

COMMISSIONER BROWN: We're not sure. I mean, we can try to get you that information. I did not come prepared to give you that information today.

MAJORITY CHAIRMAN GODSHALL: Thank you. If you do have that, I would appreciate you passing that forward.

COMMISSIONER BROWN: We will do that, Mr. Chairman.

MAJORITY CHAIRMAN GODSHALL: Thank you very much for your testimony.

COMMISSIONER BROWN: Thank you.

MAJORITY CHAIRMAN GODSHALL: At this time we have Greg Geller, Director of Regulatory and Government Affairs, EnerNOC. We were going to hold the hearing up waiting for you, but then we decided to go ahead.

MR. GELLER: I certainly appreciate your flexibility, and my apologies. I had some plane troubles coming out of Boston. So, thank you for your flexibility.

Good afternoon. And thank you, Chairman Godshall, Chairman Daley, and members of the committee and staff for the opportunity to testify this afternoon. My name is Greg Geller, and I'm a Director of Regulatory and Government Affairs for EnerNOC.

EnerNOC is a leading provider of energy and intelligent software, or EIS, to enterprises and utilities, which enable them to access their realtime energy data combining dashboard and data visualization, alerting and reporting to help to identify, prioritize and implement energy-saving opportunities.

Energy is often one of the largest three or four cost drivers for businesses, governments and institutions. It is rarely managed as closely as other expenses. Historically, end-use customers have had minimal insight into their energy bill, and what actions they can pursue to lower their bill. EIS demystifies energy for end-use customers, enables them to understand what is

driving their energy costs, and provides concrete recommendations for reducing their bill. This software makes businesses more competitive, and government and institutions more cost-efficient, and we are proud to have saved our customers over $1 billion.

EnerNOC's EIS solutions for enterprises include applications that help organizations buy energy better, manage utility bills, optimize energy consumption, participate in demand response, and manage peak demand. EnerNOC has a significant presence in the Commonwealth of Pennsylvania, providing EIS to nearly 2,000 customer sites, including school districts, municipalities, local businesses and national chains.

In fact, one of our customers, North Penn School District, won a 2014 Governor's award for environmental excellence. North Penn School District was recognized by Governor Corbett for creating an energy management program that combines operational and behavioral changes, energy efficiency, demand response and community engagement.

The program launched in 2008, and in 2011, North Penn School District deployed EnerNOC's

energy intelligent software to bring new levels of visibility to its energy management program. Using EnerNOC software, creating a new culture and instituting operational changes, the district has saved $2.5 million.

Combined, these customers have earned tens of millions -- Combined, Pennsylvania customers have earned tens of millions of dollars in payments for their participation in the PJM demand response program, which compensates customers for agreeing to reduce their energy consumption during periods of stress on the electric grid, including summer heat waves or Polar Vortex.

According to independent third-party estimates, last year this program saved all customers across the 13-state PJM footprint $11.8 billion. This averages out to several hundred dollars per household, and totals to between 1 and $2 billion in Pennsylvania.

Moreover -- Sorry. Skipping ahead here.

EnerNOC EIS solutions for utilities deliver demand-side resources and program implementation solutions to utilities, grid

operators and energy retailers worldwide, helping them achieve their demand-side program, resource adequacy and customer relationship objectives. Our utility software platform can be deployed to increase customer engagement, achieve savings through behavioral energy efficiency, or run demand response programs. The software focuses on commercial and industrial customers. And through the Act 129 programs, we have partnered with Pennsylvania utilities on demand response and energy efficiency.

EIS is continuing to be on the cutting edge of technology, and EnerNOC now has partnerships with SunPower and Tesla, leaders in the solar and storage fields, respectively. With EIS's capability to connect to a customer's tariff, customers can leverage it to understand and realize the full value of these deployments.

Now transitioning to our comments on Act 129. Act 129 has delivered and will continue to deliver significant value to all Pennsylvania ratepayers. As of 2014, Act 129 had achieved $4.2 billion in savings, and cost just $1.8 billion. As others have testified, it also has created jobs, reduced emissions and stimulated

innovation. With a couple of legislative changes, the General Assembly could strength Act 129, increase net benefits to repairs, and facilitate compliance with the Clean Power Plan.

First, EnerNOC recommends aligning the bottom lines of electric distribution companies with the bottom lines of their customers. To the extent that Act 129 programs can achieve net benefits for customers, EDCs should share in that benefit. Unfortunately, the current construct is the exact opposite.

While EDCs can recover the direct costs of the Act 129 programs, they are not able to cover the lost revenue that results from less energy being used. The less energy that is used, the less revenue there is for utilities. This can lead to utilities being unable to recover their fixed costs.

At a minimum, utilities should be indifferent to energy efficiency and demand response programs. As of September 2014, more than half of the states in the United States, including nearly all of Pennsylvania's neighboring states, have either electric or gas-decoupling policies. Decoupling is a rate adjustment mechanism that

separates an electric or gas utility's fixed cost recovery from the amount of electricity or gas it sells, which reduces the negative impact of less energy being sold.

We'd recommend changes that go beyond making utilities indifferent, and instead, provide incentives to utilities to the extent they meet energy efficiency and demand reduction targets and save customers money. This is necessary to put demand-side investments on a level-playing field with traditional infrastructure where utilities earn a rate of return.

According to the American Council for Energy Efficient Economy, or ACEEE, about 25 states currently have or are considering some type of performance incentive. States with these incentives see greater investments in demand-side resources, and therefore, more savings to customers. We would gladly work with the committee on designing these incentives so they maximum value to ratepayers.

Second. We'd recommend that Act 129 be amended to allow utilities to earn a rate of return on deploying advanced energy analytics technology, such as software that engages customers in taking

control over and reducing their energy use. Currently, the Republican-sponsored energy package in the U.S. House of Representatives contains such a provision. If utilities can't earn a return on this technology, they will be less likely to deploy it relative to traditional infrastructure investments.

Finally, EnerNOC recommends removing or increasing the strict cap on energy efficiency and peak demand reduction spending. This cap is currently at 2 percent of the EDC's total revenue as of 2006. And having such a restrictive cap limits the net benefit to customers, as several cost-effective programs aren't funded.

For instance, according to the statewide evaluation team, higher demand reduction targets would have provided benefits well in excess of costs. However, the 2 percent cap means that lower targets will be implemented. Of the 24 states that are implementing energy efficiency resource standards, only four, including Pennsylvania, cap spending as a percentage of revenue.

The 2 percent cap will also limit a cost-effective compliance option for the Clean Power Plan. As the EPA has stated that they

anticipate that, quote, due to its low costs and potential in every state, demand-side EE will be a significant component of the state plans under the Clean Power Plan. Recent studies have found that EE is two to three times cheaper than traditional power sources.

Instead of placing a cap on spending as a percentage of a utility's annual revenue, we believe the cap should be the point where programs no longer deliver net benefits to ratepayers. At a minimum, EnerNOC recommends the cap of 2 percent of 2006 revenues be increased to 3 percent of 2015.

In sum, Act 129 has delivered substantive benefits to the Commonwealth, and with some improvements to the statute, those benefits can be enhanced.

This concludes my testimony. Thank you for your time, and I look forward to your questions.

MAJORITY CHAIRMAN GODSHALL: I'd just like to say that North Penn School District is a small school district in Montgomery County of 13,000 students. It happens to be in my district. So, I'm well familiar with the program that you put in place in that district.

I do know -- well know the substantial savings that they have succeeded in doing because of the program. So I want to thank you for that, because it's also my tax dollars that come in here.

Do we have any other -- I don't believe there's any other questions. I just want to say thank you in making the effort to come down here. I know you had trouble with transportation. So thank you, and we appreciate your testimony, sir, and your suggestions.

MR. GELLER: Thank you.

MAJORITY CHAIRMAN GODSHALL: Next presenter is PennFuture Energy Center, Rob Altenburg, Director.

MR. ALTENBURG: Good afternoon, Chairman Godshall, Chairman Daley. Thank you very much.

I'm very happy to be here to talk about energy efficiency today. Again, my name is Rob Altenburg. I'm the director of PennFuture Energy Center. We're a nonprofit membership-based, environmental advocacy organization that works to protect the health and welfare of all Pennsylvanians as we grow our economy. We recognize that improving energy efficiency is absolutely critical to the success of that mission.

There's been a lot of speakers today that have put out a lot of really good information. I think there's three points here that are important to remember. The first is, that energy efficiency is the least expensive energy resource that's available.

A study last year out of Lawrence Berkeley Laboratory peg the levelized cost of energy for energy efficiency at about a cent and a half of kilowatt hour. The next cheapest of fossil-fuel generation is natural gas combined cycle, which is pegged at 7 and a half cents a kilowatt hour; five times more expensive.

Saving energy means lower electric bills for homes, businesses that are more efficient, but it also means lower wholesale costs as we mitigate price spikes caused by supply shortages, congestion and avoided line losses for the transmission of power. Of course, saving energy also means cleaner, healthier environment for ourselves and our children as we avoid polluting our air, water and land while we conserve natural resources.

Now, Phase 1 of Act 129 was a success. Customers certainly like the program. They're happy when they see rebates on appliances, lower

costs of light bulbs; home energy audits that teach them how to be more efficient. They're very happy with that. But when we look at the numbers, that also tells us that same story of success.

All of the participating electric distribution companies eventually met and exceeded both their energy efficiency in demand reduction requirements. And the statewide evaluator, as we heard Chairman Brown from PUC say, they did so well returning 2.4 dollars for -- $2.40 for every dollar invested. So this was a highly cost-effective program.

Actions under this program also reduced our carbon pollution by over 3.4 million tons. In the context of the Clean Power Plan, if we were to take our Phase 1 performance and do this within the Clean Power Plan's compliance period, that would be like getting 6 percent of the way to our mass-based target with a program that not only pays for itself, but returns $800 million in additional savings -- a year in additional savings. That is a fantastic program and an excellent opportunity for meeting our Clean Power Plan goals.

Now, we're currently in Phase 2 of the program where we expect the 2.3 percent reduction

in usage saving more than $3.3 million -- or saving 2.3 million megawatt hours in electricity over the life of the three-year program. And the EDC's plans for these programs, again as Chairman Brown said, we don't have the final data yet, but the plans they submitted said these programs would save $400 million over the cost to implement the programs. And again, all of our participating electric distribution companies are well on their way to meeting those goals.

In setting these goals, the Commission uses a market potential study that the statewide evaluator releases. Now, for Phase 3 they looked at the amount of reductions that were cost-effective and achievable, giving adequate investment. Those are actually more than double the Phase 3 targets that ended up being established. The actual targets are far lower because of this 2 percent spending cap.

As we heard about the -- The Act 129 requires that the cost of the program -- the benefits in the program exceeds the cost. That's one of the criteria that the PUC must consider when setting targets. But Act 129 spending cap means we can only actually achieve a fraction of those

benefits that are actually cost-effective. And worse yet, because of inflation, it's actually a declining cap. Right now we're at about 16 percent below the 2006 baseline in terms of real dollars. And by the end of Phase 3, we might be as low as 25 percent below our baseline spending.

We see that in the targets that are being set; that in each phase, the targets that are being set seem to be gradually declining. This is particularly serious in light of the Clean Power Plan because, when we draft our state plan, if we fail to take advantage of the cheapest and most cost-effective resources available, then we're going to need to make up that difference someplace else. Since we're not going to find another program that's going to pay for itself to the extent that energy efficiency has, that does mean that those are going to be more expensive alternatives; more expensive alternatives going forward.

We also have a few recommendations regarding the future of Act 129. The main one is to protect our existing gains. Any action that lowers the Act 129 budgets or lowers the targets means another program is going to end up having to

do more. So, at a minimum, we should avoid weakening the program.

We should also certainly consider removing the spending cap. The act already requires that actions taken are cost-effective using the very Conservative Total Resource Cost test. As we heard, we mentioned --

Well, we heard a little bit about the TRC cost -- test mentioned by the PUC, but it's important to point out that the TRC is focused on avoided cost of generation. It doesn't consider health benefits. It doesn't consider welfare benefits.

There's a whole -- quite a number of benefits beyond that are achieved, but when you reduce energy efficiency, but there's no mechanism in the TRC test to consider. So this is a very conservative test to start with. So having this bending cap in addition to a very conservative cost benefit analysis, effectively limits the benefits that consumers can see.

In Act 129, we can also build upon improving successes. The Act 129 program is limited to electric distribution companies and electric utilities, but we see the same issue with

natural gas utilities in some cases. We also see customers who -- I was talking to a customer just today who had a home energy audit, and because the consumer had gas for heating and electricity for hot water and lighting, when any -- any energy efficiency program that was installed in that house would only take credit for offsetting the electricity part of it.

So, if that person did better insulation that will help them in the summertime. Even though there would be a real gas savings in the wintertime, there'd be no mechanism in the act to take credit for that. We have a program that does save consumers money, it makes sense to consider extending it to natural gas as well.

Also, we can echo the comment that I think many of the people made today about rethinking the rate designs that electric distribution companies are under right now. The Energy Association referred to themselves as a wires company. They're in the business of providing the wires to get the electricity to your house, but their rates are based on the amount of energy you use. So they have an incentive for consumers to waste -- for consumers to waste

electricity.

Now, electric distribution companies, they do a great job because -- their consumers tend to love them, and they certainly deserve to get a -- you know, make a -- a fair amount for the service that they're providing. But if you have a system where their incentives aren't aligned with the incentives of the consumers, we have negative effects. I think that was echoed by pretty much every person testifying today.

We would also agree with those testifiers that suggest performance incentives are, I think, an optimal solution. Yes, it's unfortunate that the program is right now, as the Energy Association put it, all stick and no carrot.

Many of the people, particularly at staff level of EDCs that we work with and talk to, they see the customers liking these programs. They are really trying to do a good job. It's unfortunate that there's not a mechanism for rewarding companies that meet and exceed their goals. There's only -- There is only the stick, the mandatory penalties if they don't. So I think addressing that would be something we could easily do.

Now, when it comes to the Clean Power Plan, it's going to come down to a choice for Pennsylvania. We're going to either craft a state plan of our own or accept the federal plan. We certainly support creating an acceptable state-based plan. We think the flexibility will be a benefit to Pennsylvania, and that's definitely the way to go. And, certainly, as energy efficiency is the most cost-efficient energy resource out there, we hope it will continue to be a key part of our plan in the future.

Thank you very much.

MAJORITY CHAIRMAN GODSHALL: Thank you very much for your testimony and appreciate you coming out here with us today.

MR. ALTENBURG: Thank you.

MAJORITY CHAIRMAN GODSHALL: Thank you.

I'd like to announce we have been joined by Representative Pickett, Representative Delozier and Representative Stephens since we had the original introduction.

At this point, we have the Industrial Energy Consumers of Pennsylvania, Mike Messer, Manager Energy and Regulatory Affairs of Linde, LLC; accompanied by David Ciarlone, Manager of

Global Energy Services of Alcoa. Gentlemen.

MR. MESSER: Good afternoon, Chairman Godshall, Chairman Daley, members of the House Consumer Affairs Committee.

My name is Mike Messer, and I am the Manager, Energy and Regulatory Affairs for Linde, LLC; and I'm joined today by David Ciarlone who was Manager, Global Energy Services for Alcoa, Inc. Today we represent the industrial energy consumers of Pennsylvania, which is a trade organization of 18 of very energy-intensive companies with vocations all across the Commonwealth.

We appreciate the opportunity today highlight our position on Act 129, but also to request consideration for an amendment to Act 129. That amendment would be to provide a voluntary opt-out of the program for large consumers going forward. For that request, we provided a lot of detailed documentation in our written testimony.

But what I'd like to do for this time is to go through the slide pack that we attached to the presentation, because we actually have some cost examples of Act 129 impacts we'd like to review at this time. It's also being shown on the screen over here to the side. Can everybody see

the packet?

Turning to slide 2, large consumers live energy efficiency every day. We simply have to stay competitive to stay in business. When you take a look at over the last 27 years, the energy intensity consumption from industrials is down over 45 percent; most of that occurring before programs like Act 129 were enacted in 2010. So, the large consumer base is living this every day.

We have to -- We're also taking other steps out there participating directly in the wholesale market. Some of us are our own electricity suppliers, et cetera. We're pursuing any and all avenues to reduce energy consumption and energy costs.

For the voluntary opt-out that we're talking about, I'll just raise this at a very high level. What we're talking about is a choice -- a voluntary choice done before the phase actually begins, so it's a voluntary choice before the phase and it's for the entire phase, so there's no in or out of a particular phase. You make a choice, and it applies for that entire phase.

The reason we went down that path is because we were attempting to do two things. One

is, is to provide the utilities time to plan and adjust their plans as opt-outs may occur; and 2, to try to minimize any of the management effort during the phase by reducing those movements both in and out of the program.

Slide 3, please. To go over some examples of Act 129 impacts, I'd like to first talk about what I call major projects. Major projects would be projects that cost millions to tens of millions of dollars to implement, and we have shown them on this bar on the chart here. We've broken the bar into three components of the project.

So down at the very bottom -- And I know it's very difficult to see on the screen there. But down at the very bottom is a red little sliver, and that was an Act 129 grant that will hopefully be achieved for this project. When we take a look at the size of that grant in terms of the overall project cost, it comes in less than 1 percent. So, simply put, an Act 129 grant is not influencing the decision to do this project one way or the other. It's not a motivating factor.

The next portion of the bar is a blue section which represents energy efficiency work within the project. Here we see that this project

had about 20 percent of the cost assigned to energy efficiency measures. So, even when we apply the grant to the actual efficiency measures undertaken in the project, it's still only roughly 5 percent of that cost. Again, it's not a motivating factor to implement the project.

I'd like to call your attention to the green portion of the bar. These are the portions of the project; they're not energy efficiency related, but yet, they still have to occur to implement this project. They could be infrastructure changes, maintenance-control modifications, et cetera. It's just a host of work that could fall in that category.

So, when you stack it all up, there's other factors driving this type of a major project. The Act 129 grant is not recognizing or rewarding these type of very desirable projects that provide both a long-term benefit and a long-term commitment to the Commonwealth.

If we could go to slide 4, please. The other portion of cost associated with what I term major projects is a timeline effect. If you look at the red line that's called Act 129 cost impact, here you see a long time period with monthly Act

129 surcharges being incurred, which we believe will be under Phase 3 in this example and into Phase 4 of the program. So, every month there's charges being put onto the consumer.

And in this example, for the average IECPA member, we're talking about charges that could be approaching $3.8 million. It's an approximate figure, but it's a substantial amount of money. So the question is, why are those charges being incurred? Why are they not recoverable?

Well, if you go up one line to the blue line, the project to life cycle, after we've implemented this major project, which is shown by the completion there, there's now a period where this large investment's been made. You're now operating at an improved energy efficiency level. There are no additional investments to be made at this facility for some part in time. So the facility goes on, it operates. A significant investment's been made, but it's got no opportunity to go back and try to recover these Act 129 charges that are occurring month by month by month.

And, in terms of a project to life cycle when you think of major projects, it is over a very

long period of time. You've got probably a multi-year period upfront where decisions, budgets, maybe equipment, procurements, et cetera, all occur. Then you have this period where you're running at the improved efficiency level before the next major upgrade has to occur at a particular facility. So, again, we can change this. We can make it shorter than 10. You can make it 7. It can also be longer. It could be 12. But the net impact is, there's a substantial amount of funds that are simply unrecoverable after this type of project is completed.

At the very top we tried to show the Act 129 phases across the timeline there. So you can see it's very easy for a type of project like this to exceed two or three phases of Act 129 while the project is actually being implemented or receiving the benefits of implementation.

Slide 5, please. So the other side is that you don't have a major project; that you're dealing with more traditional-type project that you might have. So this slide addresses that scenario.

The same typical or average IF customer over the five years of Phase 3 would see surcharges coming up and close to $2 million based on kind of

where the current market is right now. So, to try to recover that surcharge amount, that consumer needs to implement efficiency projects gaining 3 percent every year across all those years. And, the simple fact is, there isn't a backlog of multiple projects to be done on an annual basis to try to recover that amount of money, especially not after six years of Phase 1 and 2 have been implemented. A lot of the easier lower-hanging fruits already have been plucked off.

So, we've got this backlog of projects issued that must also occur very frequently and very often, but there's other issues that are preventing you from recovering the surcharges. Some of those are, there's caps and administrators. There's caps being put in place of 500,000-dollar-a-year grants. There's limits on the number of projects. There's limits on the amount of a grant, 50 percent, maybe, of the project cost.

Utilities are following very conservative practices for identifying what the efficiency gain is, and that's happening because nobody wants to get penalized at the end of this, so it's very conservative. What happens is, even though it's conservative, if you outperform that,

there's no reservation of funds because other people have come in and grabbed those funds out, so there's not a reward for the actual performance of a project.

So, the actual examples that we wanted to give was that, the major projects, the Act 129 grant can be a very small portion. It's not influencing the project decision. And on more traditional-type projects, there's simply not a backlog of work that's available to do to try to recover those surcharges that are being incurred.

Next slide, please. What we've heard also and when we talked about the voluntary opt-out, there's a couple of concerns. I want to try to address those real quickly at a very high level.

So there was a concern raised about opt-out would reduce residential and small business participation under Act 129. Well, that's not going to occur in this example because we're talking about different buckets of funds funding these programs. There is no connection between large consumers and the small businesses and residential. So there's not an issue there with the funding for those groups.

There's a concern raised that opt-out may reduce large consumer energy efficiency. Well, I think we've shown that, over time, large consumers are moving actually ahead of these programs. Again, it's a matter of being competitive and staying in business to do those projects.

Now, we've also heard that opt-out allows consumers -- might allow them to collect grants and leave without paying in the money, and that was the reason why we put the proposal together like we did. It's a choice before the phase for the entire phase. So you're either in or you're out. There is no ability to try to go in and go out and get money; then not have to pay for it. It's a conscious decision made up in front of the phase.

We've heard a concern about the opt-out will reduce energy in industry jobs in the Commonwealth. As we've shown, the projects that large consumers pursue, for the most part, are not motivated or influenced by Act 129. So, the rate of projects which we do is not going to change whether Act 129 is there or is not there. And, therefore, the relationships and the engineering

that we do with our business partners is not going to change either. That will continue on as it has in the past.

We've heard that the opt-out may reduce funding for the large consumer market segment. Again, what our proposal is trying to do is identify that upfront that those exceed benefit from the program can remain in the program. The utility can then right size the program to those consumers that are seeing benefits from the program.

Finally, the opt-out may allow large consumers to avoid investment in Pennsylvania. When you take a look, 13 IECPA members have invested 2.05 million -- billion dollars, sorry, into major projects in the Commonwealth since Act 129 went into effect, and those are not being rewarded or recognized by Act 129, so there is not going to be any change in investments as evidenced by that performance.

Slide 7, please. I wanted to show the United States and the states that currently have a voluntary opt-out in place for large consumers. Those states are shown in green. We can see there are 15 of them across the country. Our request for

an amendment to Act 129 would be to make Pennsylvania the 16th state to join the other states in green.

You can see those states in green, they're immediately to the west and south of Pennsylvania, and they also represent more heavily industrialized states as well. So our request, again, is to put Pennsylvania in a more competitive basis, both regionally and globally, and remove this cost burden that large consumers are currently seeing.

The final thought that I wanted to leave everybody with is another time sensitivity issue. The request for an opt-out -- And this is still on slide 7. There is no more slides. The voluntary opt-out really needs to be approved probably in the October slash November 2015 time frame so it gives sufficient time for the planning of Phase 3 to continue moving forward. So, there is a sensitivity issue.

We would request that this issue be considered a high-priority item for that time frame, so that we do not lose the next five years in Phase 3 without the ability to address what the cost impacts are.

With that, I would thank you for your time and consideration. Dave and I would welcome any questions that you have.

MAJORITY CHAIRMAN GODSHALL: Representative Daley.

MINORITY CHAIRMAN DALEY: One real quick question. I guess the question is, why not make grants to the larger industrial consumers under Act 129, the EE and C programs bigger so they can make a real difference?

MR. CIARLONE: Mr. Chairman, I guess there's two challenges with that notion. First of all, that money -- that program is spending our own money already. That's money that's taking from industrials and giving to other industrials. And, as the Representative mentioned, a lot of that is us giving payments to subsidize our competitors to catch up with us.

The other challenge of that would be, for those grants to get big enough to make a difference; for that red sliver on that one grant to get big enough to drive a decision for a project, that's an order of magnitude that is just beyond the reasonable scope of what you could collect in an utility-based program.

The DOE has programs like that. The DOE, I'm aware of a program that -- a steel manufacturer in Ohio used, I think their grant from DOE was in order of 60 to $80 million. I just don't see a Pennsylvania utility company collecting that kind of money in one of these energy efficiency conservation programs to have a grant on that scale, unless the corresponding surcharges would just became absolutely exorbitant.

MINORITY CHAIRMAN DALEY: Well, let me ask you this question. The little red sliver that you're talking about is on your graph that shows how much grants and it's kind of miniscule to the total amount of funding that is in the whole process. You said that, fundamentally, it's larger industrial folks giving money to smaller industrial folks that will be more competitive with them; is that correct?

MR. CIARLONE: That's not exactly what I intended to come out. What I --

First of all, as Mike pointed out in our testimony, the customers are all in the same bucket. So the large industrials are in the same group as the large industrials. The subsidization that we are concerned about is, those of us who are

first actors; those of us who proactively invested in energy efficiency; those of us who drove that curve down on the energy intensity curve, we've already done our lighting improvements. We've already done our motor drives. We've already done the low-cost and no-cost energy efficiency initiatives.

For the most part, we operate energy efficiency programs all the time. I was amused when one of the witnesses said that energy is rarely managed. I mean, I'd like for that person to come into our office; a large industrial, we manage energy very intensely every day.

The subsidization that we were concerned about is, the first actor, the industrial that was proactive and made those investments, instead of being able to enjoy the competitive advantage that they created by making that investment of time and money and effort, they have to pay money in so a competitor potentially in the same state can now catch up. We think that our money should go to other productivity improvements that we can continue to drive in our businesses. And, we think that if our competitor wishes to survive in a globally competitive market, they also need to make

energy-efficiency investments that their shareholders pay for.

MINORITY CHAIRMAN DALEY: Yeah, I'm a social garlist (phonetic) too, and I understand what you're saying. But at the end of the game, by helping those -- And I know this is almost socialistic, and I'm not trying to be a socialist. I'm a capitalist.

MR. CIARLONE: I'm accused of that, though, but that's okay.

MINORITY CHAIRMAN DALEY: At the end of the day, wouldn't that competitiveness that's being improved by the small industrial folks, at the end of the day won't that benefit consumers?

MR. CIARLONE: In order to buy into that, you have to buy into a theory called -- the people call price suppression. In other words, there was some talk about how energy efficiency will drive down -- these programs drive down the cost of power.

You have to break it apart into two pieces. There's demand response, which is actually shaving the peak off of a demand on -- at a time of high demand. For example, during the Polar Vortex in January of 2014, if there was a way to knock

back the demand during those periods of time, everybody in the Commonwealth, everyone in the PJM footprint, for that matter, would have had a lower cost of power because we avoided that high, high peak cost. So, demand response works. We believe in demand response. We participate in demand response.

But with respect to energy efficiency, with respect to the 24/7 kind of reduction in power, the people that reduce their power see that benefit. But we don't believe that there's a significant price suppression response from energy efficiency.

As a matter of fact, this is consistent with a finding that the PUC had; that they just didn't see enough of value in price suppression with respect to energy efficiency that they didn't think it was worth studying. We make that point in our written testimony.

An example, I think about it as apples. If I have a need for 10 apples, but I suddenly figure out a way to make what I'm making with only eight apples, I achieve a 20 percent reduction of my use, a 20 percent reduction in my costs. But because I reduced my apples by 20 percent, the

grocery store is not going to reduce its cost of apples, because the cost of apples is related to whole other things beyond just what I'm paying for -- in the transaction I'm making.

In the case of Pennsylvania, I think we show that there may have been like a 1 percent overall reduction in the power being used with respect to energy efficiency. There's just so many factors that go into determining power prices that we just don't believe there's a significant effect in price suppression from energy efficiency.

MR. MESSER: I'd like to add on one item, if I could, please.

In terms of, the comment was made earlier about making a decision to invest funds in the best application that's available. The wholesale market, the PJM market in this area is undergoing some changes now. So we take a look at how you may need to operate in the future. Winter now, all of a sudden, has become a time for load reductions much more so than it ever was in the past.

There are things that individual company may wish to do to take advantage of that. But those funds that might go to that type of project

are being taken and moved over to pay for like Act 129 in that example. So, you're losing control over essentially, your own destiny.

MINORITY CHAIRMAN DALEY: Thank you for your testimony. Thank you very much, gentlemen.

MR. MESSER: Thank you.

MINORITY CHAIRMAN DALEY: Chairman Godshall left the room for a second. I'm going to introduce our last testifier. It's Rich Selverian. Rich, I hope I pronounced your name right. I apologize if I didn't. KEEA Board President and President, McGrann Associates, presenting on behalf of Keystone Energy Efficiency Alliance. Then if you could introduce your guests that will be sitting with you at the table.

MR. SELVERIAN: Thank you, Chairman Daley, and Chairman Godshall, wherever --

MINORITY CHAIRMAN DALEY: He'll be back.

MR. SELVERIAN: -- he may have gone. We appreciate the opportunity to talk to the committee.

My name is, as you said, is Rich Selverian, and I am President of MaGrann Associates and also President of the Keystone Energy Efficiency Alliance, also known as KEEA. I have

with us KEEA's policy team, Maureen Mulligan to my left and Matt Elliot to my right.

So, we submitted our full testimony to you and you have that. I'll run through, sort of summarizing some of that. And, much of what we'll say you've heard in a different way, but we represent a slightly different constituent. So let me first say that KEEA comes before the House Consumer Affairs Committee today representing our association of 50 members and individuals working to achieve energy efficiency in all buildings. Many of our members are registered with the Public Utility Commission as conservation services providers.

My own company, MaGrann Associates, started as a small business and operated for more than 30 years and now has offices in Pennsylvania at the Navy yard, as well as New Jersey, Ohio, Kentucky, Washington, Hawaii and New York. Our members deliver energy efficiency programs in Pennsylvania and across the country.

In developing, refining and extending Pennsylvania's Act 129 energy efficiency and conservation programs over the past six years, Governors Corbett and Wolf have both pointed out

that energy efficiency is a business that improves the competitiveness of Pennsylvania's economy and is part of our state leadership across the country.

Similarly, the General Assembly has acted in a bipartisan way to grow this economy as well. We look forward to working with leaders on both sides of the aisle to continue this positive momentum that's creating jobs and drawing businesses to Pennsylvania.

Today I'm going to share some insights on how we can make our economy stronger through pro-business policies on energy. KEEA has been an active participant in the public utilities management of Act 129 energy efficiency programs over the last six years. Our members look forward to continuing that work with the PUC process to improve the program, while continuing to supply customers with dependable energy efficiency.

Let me first tell you a little bit about the face of our industry. We, in the energy efficiency industry, work in roles that improve the energy and financial performance, as well as comfort and environmental impact of residential, commercial and industrial facilities. We are electricians, engineers, trained technicians,

financial analysts, construction workers, facilities managers, software developers, and other specialists.

As a result of Pennsylvania's utility energy efficiency programs, many of our businesses have launched new offices in Pennsylvania. Collectively, we employ thousands of Pennsylvanians and put hundreds of millions of dollars into our economy.

Let me go over several areas. First, in Pennsylvania, energy efficiency companies have created significant jobs largely thanks to smart policy initiated by this legislature. As stated in Governor Corbett's state energy plan in assessing the value of Act 129, I quote: As Pennsylvania's electric distribution companies have met Act 129 goals, they have helped foster the economic development benefits associated with energy efficiency industry. Indeed, Pennsylvania's energy efficiency workforce is about 37,000 strong.

Establishing utility energy efficiency programs is particularly a boon to our economy because it supports jobs and takes place in the state; not beyond our boarders.

Second. The economic benefits of energy

efficiency have been widespread. Taken together, Act 129's first and second phases will result in roughly $2 billion in savings. You heard some of the numbers today. Commissioner Brown mentioned we're saving $2.4 for every dollar spent through Phase 1, and we're already off to a very positive number in Phase 2.

Pennsylvania's energy programs continue to demonstrate this positive return. Not only do recipients of these programs benefit, but all six million utility ratepayers see wholesale electricity market benefits. Energy efficiency measures not only produce annual savings, but by shifting the demand curve, also provide capacity and wholesale price savings for Commonwealth. By the way, these last two areas have yet to be studied. So the savings you've heard are really about the direct energy savings as reported by the TRC test mentioned earlier.

So, as a result, electricity prices declined resulting in extra dollars in the pockets of all electric ratepayers, businesses and residents alike.

In 2013, by comparison, Ohio's energy efficiency impact on electricity markets found over

$3 billion of energy savings. That would be comparable to the savings you heard on our side. But they also found an additional almost one billion in wholesale price mitigation and more than a billion in capacity price mitigation. Again, these are two areas we have not completely quantitatively assessed. So their total was about $5.5 billion in savings. They have between 2013 and 2020 based on their programs.

In addition, increased energy efficiency has made our grid more reliable, which has benefited all Pennsylvanians. As everyone here knows, when we discussed this topic last February and someone mentioned earlier the Polar Vortex, the winter had been particularly cold and electric demand for heating caused the grid to reach new seasonal peaks.

Fossil fuel generation has traditionally been very reliable, but recent extreme weather has revealed its vulnerabilities and the benefits of energy efficiency. Last winter's weather forecast forced many fossil plants to cut back due to their inability to run at fuel capacity in those frigid temperatures.

There's a quote here: At versus times,

on January 7th, as much as 21 percent of PJM's almost 190,000 megawatt of installed capacity was forced out of service. That was according to PJM's CEO Terry Boston. Demand response, actually, was able to help fill some of that gap with more than 200,000 megawatts.

Third. There's significantly more energy efficiency to gain in Pennsylvania. Through the first two phases of Act 129, the utility energy efficiency programs will ultimately result in customer savings over 7 and a half million megawatt hours. This is equivalent electricity to power over 700,000 Pennsylvania homes, 51,000 businesses or 8,600 industrial facilities for a year.

Pennsylvania's Public Utility Commission has done the research on opportunities for growth. As the PUC's independent evaluator concludes, Pennsylvania could economically save 11.8 percent of electricity between now and 2020.

In the PUC's Phase 3 plan covering 2016 to '21, it has directed electric utilities to make energy efficiency improvements, resulting in 5.1 million megawatt hours saved; the equivalent of 3 and a half percent of grid-wide savings across the state. Thus, the state could make many more

cost-effective investments in energy efficiency that would economically benefit all ratepayers.

Fourth. We're just starting to see the potential of utility programs. The economics of electricity in Pennsylvania have changed since 2008, particularly with plentiful low-cost natural gas. But the Act 129 energy efficiency program in the Commonwealth continues to be cost-effective. This reflects the latest market analysis which puts energy efficiency far below electric generation on a levelized cost basis.

When utilities initiate energy efficiency program, consumers benefit. As a result, 20 utility programs around the country now spend over 2 percent of revenue on energy efficiency. The 2 percent revenue spending cap on Act 129 limits the potential of our programs to achieve all cost-effective results for Pennsylvania, and our state has not yet even adopted efficiency goals for natural gas. So again, the benefits far outweigh the costs, and there's still more to be done.

Fifth. Utility energy efficiency programs work when they reach all customer classes. The Ohio report discussed earlier found that

wholesale electricity savings accrue both to participants and non-participants of utility-sponsored energy efficiency programs. Act 129 is currently equitable because all customer classes pay a small rider on their electric bill. If one class of customers were excluded from paying, they would still receive the wholesale electricity savings. The savings achieved are significant. Ohio's utility, as we said earlier, estimate their savings to be 5.5 billion, which includes both avoided expenditures and reduced wholesale energy and capacity prices.

Six. Changing the program to favor one customer class would help a few at the expense of many. Allowing large commercial and industrial customers to opt out must be avoided. In some states, industrial customers have complained that the utility energy efficiency programs duplicate what they already do, and we heard some of that today, and we certainly want to work through some of those issues.

Understandably, not all customers will experience equal benefit and the costs from utility energy efficiency programs. But this segment represents a significant portion of all economic

energy efficiency which, on a whole, is untapped. Industrial customers account for roughly 25 percent of Pennsylvania's electric demand at more than 41,000 premises across the state is essential to a functioning Act 129.

Within this large customer class, individual companies may wish to totally revamp the program. But reason dictates that sound policy, benefiting the wide array of Pennsylvania's electric customers, should not be altered at the appeal of a select few. The customers would continue to benefit from the wholesale price suppression effects, which would be unfair to the other 6 million customers who support the program.

So in conclusion, Pennsylvania's decision to extend Act 129 energy efficiency programs will provide positive -- will be positive for Pennsylvania's economy for all ratepayers. There's ample evidence that Act 129 programs are helping large energy users improve competitiveness in this marketplace.

For example, one of KEEA members recently worked with a manufacturer in northeast Pennsylvania through PP&L's Act 129 large C&I Prescriptive program. The company manages a plant

with over 450,000 square feet, which sought to dramatically reduce utility bills and improve the quality of light throughout the plant.

As a result of the energy audit that identified the need for capital improvements, the actual energy reduction upgrade work, the company now saves more than $80,000 a year on its annual utility cost and shed more than 62 kilowatts of peak load. These savings help the company hire new employees, reinvest savings in R&D and compete globally.

Meanwhile, the KEEA-member company that performed the work started from the ground up in Pennsylvania, Opening its doors with just six employees, and quickly grew to its current staff of more than 30.

Beyond the state's largest energy users, Act 129 programs have benefited businesses and residential customers as well. After operating for less than four years in Pennsylvania, another KEEA-member company alone helped Pennsylvania customers save nearly $45 million on their electric bills. As a result, the company grew, workers have good-paying local jobs, and thousands of Pennsylvania families have lower energy bills and

more money in their pockets.

The success stories are many, but the message is the same. These programs are working for ratepayers and the economy. We must continue to build upon this momentum.

Finally, Act 129 should remain intact and is best left to the Public Utility Commission to handle program maintenance and modifications to meet the changing needs of the Pennsylvania customers. As utilities develop their plans as we speak, it's important for the stakeholders to suggest plan designs that will maximize the energy efficiency benefits of each utility's program.

Thank you.

MAJORITY CHAIRMAN GODSHALL: Thank you.

You mentioned earlier in your testimony PJM and the difficulties they had this past -- I know that they just recently had their option, I guess as they call their procedure. Today is everything -- PJM, as far as energy, is it all based on cost or is it also based on the type of energy? Do you know? Maybe you have no idea.

MR. SELVERIAN: I'm not sure I'm qualified to answer, but I'll give you what I believe to be the case. They look at energy cost

and rank the energy from low cost to high cost. So base load is typically included, nuclear plants, things like that. Generation is added based on cost, but I'm not an expert on how PJM actually creates its markets, but that's my understanding.

MAJORITY CHAIRMAN GODSHALL: I just read this past week about what they had done down there. I know there was -- one of the energy companies here in Pennsylvania had a couple of their nuclear plants which didn't get involved in it, which is sort of shocking. But, I guess it's not totally done at this point.

So, are there any questions? Representative Longietti.

REPRESENTATIVE LONGIETTI: Thank you.

I just wanted to delve a little bit deeper into your concern on the opt-out. As I understand the testimony we heard earlier, part of the argument is, the grants are so small relative to the project that they really don't amount to an incentive at all. So, therefore, that part of the program design doesn't work. What's your reaction to that?

MR. SELVERIAN: I'd certainly like to look at that information a little closer. I do

understand that the very, very large industrials have some concerns that we'd want to look at.

My general reaction, however, is that, no program design is set up so that the incentives cover the cost of what needs to be done. So -- And I'm making up numbers here. If there's a 20 percent energy savings by a capital project, for example; if you just do a simple payback calculation, that would say it has a payback of five years. So, if there's anything that helps you reduce that cost, then it just shortens that payback period.

I guess my general comment, without looking at the data too hard, is the incentives aren't necessarily meant to offset the cost of doing a project. They're meant to help lower the payback of doing a project.

REPRESENTATIVE LONGIETTI: And understood. You know, I'm just trying to think. Is it possible --

I mean, their argument is that the grant is so small; such a small sliver that it doesn't leverage anything. It's there, but those decisions get made independent of whether or not there's a grant.

MR. SELVERIAN: I think that would be a good thing to happen. I think that probably does happen more aggressively at the very high-end of that -- of the industrial scenario. I'm not sure that happens at all the 41,000 businesses covered by that rate class.

And again, I think what we're seeing -- One of the comments was, for instance, it may help the competitors because we're subsidizing something that we've already done. I guess the counter-argument there is, if the incentives are really such a small portion of the decision factor, then it really wouldn't be a competitor doing anything because of that being the decision. So I really think it does have to come down to good energy management and doing improvements that make sense to lower your costs, and to assess what that payback period is, as with any capital expenditure project is made based on some sort of simple payback, discounted cash flow, some sort of future value of the benefit you're going to get continuously.

So if you spend, as an example, a million dollars and get $200,000 of benefit a year, simple math says five years you get the payback.

So if the incentive helps cut that down even a little bit, what harm does that create?

REPRESENTATIVE LONGIETTI: Talk a little bit about, try to articulate, I don't know if I understand it all, but how -- The large energy consumers are saying that their part of the program doesn't necessarily affect the other classes in the program. If I hear you correctly, that's not necessarily true if that part of the program --

MR. SELVERIAN: It's my understanding that all the funds are part of the program. There isn't a segregation of funds. There is an assessment that says how much each class has benefited from energy efficiency programs, but all those dollars are commingled for the program, as I understand it.

REPRESENTATIVE LONGIETTI: Thank you.

MR. SELVERIAN: Sure.

MAJORITY CHAIRMAN GODSHALL: No further questions, I'd like to thank the presenters for taking the time to speak to us today and provide us with a better understanding of the industries and the intricacies of Act 129.

No further questions, the meeting is adjourned. And I want to thank the members for

also their attendance.

(At 3:03 p.m., the hearing concluded).

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C E R T I F I C A T E

I, Karen J. Meister, Reporter, Notary Public, duly commissioned and qualified in and for the County of York, Commonwealth of Pennsylvania, hereby certify that the foregoing is a true and accurate transcript, to the best of my ability, of a public hearing taken from a videotape recording and reduced to computer printout under my supervision.

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