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HOUSE OF REPRESENTATIVES

CONSUMER AFFAIRS COMMITTEE HEARING

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MONDAY, MAY 6, 2019
11 A.M.

PRESENTATION ON HOUSE BILL 11

BEFORE:

HONORABLE BRAD ROAE, MAJORITY CHAIRMAN
HONORABLE JOE EMRICK
HONORABLE RYAN MACKENZIE
HONORABLE THOMAS MEHAFFIE
HONORABLE ERIC NELSON
HONORABLE TINA PICKETT
HONORABLE CHRIS QUINN
HONORABLE THOMAS SANKEY
HONORABLE MARTINA WHITE
HONORABLE ROB MATZIE, MINORITY CHAIRMAN
HONORABLE DONNA BULLOCK
HONORABLE AUSTIN DAVIS
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I N D E X

TESTIFIERS

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SUBMITTED WRITTEN TESTIMONY

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(See submitted written testimony and handouts online.)

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P R O C E E D I N G S

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MAJORITY CHAIRMAN ROAE: Good morning, everyone. It is now eleven o'clock, so I'm going to call this hearing of the House Consumer Affairs Committee to order.

As you're all aware, today's hearing deals with House Bill 11.

Our first testifier, if he can get up to the testifying area, is going to be Stu Bresler, who's the senior vice president of operations and markets at PJM.

As most of you are aware, we've had a series of hearings on this issue. And I've said it before and I'll say it again, this is probably the most technical, complex issue that I've seen in my time in the legislature, lots of moving parts to this thing. And we really appreciate all the members, their attendance at the hearing. Hopefully more members will be coming in as the hearing progresses.

And thank you to all the testifiers. We've learned a lot about this issue.

And I'm going to see if my Democratic Chair has any opening statements he would like to make.

MINORITY CHAIRMAN MATZIE: Thank you, Mr. Chairman.

I agree and echo your statements. I think it's been a thorough vetting and a lot of good Q and A, so looking forward to the testimony today.

Thank you.

MAJORITY CHAIRMAN ROAE: All right. Thank you.

And, Mr. Bresler, when you're ready, you may begin, sir.

MR. BRESLER: Thank you, and good morning.

Thank you, Chair -- Representative Roae, Representative Matzie. Thank you very much for the opportunity to appear before you today.

Again, my name is Stu Bresler. I do serve as senior vice president of operations and markets at PJM Interconnection.

I last appeared before this committee not long ago, just a couple of months ago, in March. My testimony was based on providing information and education about PJM, our role as a system and market operator, and the value we bring to ratepayers in the Commonwealth. I spoke about our ongoing successful mission to ensure both electric system reliability and the lowest reasonable cost for Pennsylvania and all of the states in the region that we serve. I also spoke about how the energy industry is evolving with changes to fuel mix, technology, and the way consumers use electricity. I spoke about PJM's efforts to evolve along with the industry and how we are looking to leverage the discipline and efficiency of our markets to find solutions that will continue to ensure reliability at lowest costs while embracing many of the drivers behind the evolution.

I'm pleased to report that in the short time since I appeared before you, we believe that we are prepared for whatever Mother Nature throws at us this summer. The system continues to be reliable and will be reliable into the foreseeable future, and our initiatives to enhance and evolve our markets continue to move forward.

I'll also repeat one other data point that I made sure to bring to your attention the last time I testified, and that is that Pennsylvanians over the last five years have seen more than $2 billion in savings through our competitive markets.

Absent from my testimony in March was a discussion of state legislation or policy related to alternative energy portfolio standards expansion or the concept of providing additional, out-of-market revenue streams for nuclear, renewable, or any other forms of electricity generation. At that time, House Bill 11 had not yet been noticed or assigned to the Consumer Affairs Committee. Clearly, as I now appear before you in a hearing on House Bill 11, the committee has specific legislation under consideration.

The purpose of this hearing notwithstanding, it is important to note that PJM is neither a proponent nor an opponent of this bill or the version that is currently before the Senate Consumer Protection and Professional Licensure Committee.

PJM recognizes and respects Pennsylvania's prerogative to set forth policies regarding environmental protection, workforce retention, local tax base, or any other policy. PJM also recognizes that state policy plays a role in determining the assets and the fuel mix used to meet the Commonwealth's resource adequacy needs. That PJM is neither an advocate nor an opponent of House Bill 11 should not, however, be taken as an indication that the bill lacks potential impact or consequences to our markets under the current format and structure.

As I indicated in my prior testimony, the benefits resulting from the PJM markets and enjoyed by Pennsylvania consumers stem from the wisdom and foresight of Pennsylvania's prior policy decisions to leverage the power of competitive markets in meeting its resource adequacy needs. However, those markets need to work efficiently if they are to continue to achieve their goal of reliability at lowest costs.

Our regulator, the Federal Energy Regulatory Commission, recently ruled that the PJM capacity market for resource adequacy has become unjust, unreasonable, and unduly discriminatory because it fails to adequately address price distortions created by out-of-market support for generation resources, similar to the kind contemplated in House Bill 11. The finding required PJM to file a proposal effort that contains significant changes to the existing capacity market in an attempt to address the deficiencies cited in the third quarter.

The fact that PJM must alter its capacity market to address the impact of out-of-market payments to generation is not itself a validation or an indictment of the policy behind out-of-market payments. It is simply an indication that the policies, like the ones contemplated in House Bill 11, can impact PJM markets. Given Pennsylvania's decision to rely on PJM's markets to provide cost-effective resource adequacy, this committee may find it useful to understand these impacts and how the market changes implemented as a result may in turn impact Pennsylvania.

This committee should also be aware that there are alternatives to out-of-market payments for retaining or incentivizing a resource mix that would achieve carbon reduction goals that more efficiently integrate with the market structure in which Pennsylvania has chosen to rely. Implementing a price on carbon emissions is the primary and most readily available such alternate.

The remainder of my testimony this morning will provide additional detail pertaining to FERC's order, PJM's policy proposal, and how the potential changes to the PJM capacity market will interact with House Bill 11, if it were to become law. It will also provide clarity on PJM's role in the implementation of carbon pricing and how carbon pricing can be integrated into PJM's existing capacity market -- energy market, excuse me. Finally, we'll address some possible misconceptions about the time frames under which PJM's markets and planning processes seek to ensure reliability.

In June of 2018, FERC issued an order in response to a complaint to a PJM member that sought relief from capacity market price suppression caused by what the member characterized as below cost offers from existing resources, who's continued operation is being subsidized by state-approved, out-of-market payments. FERC found in favor of the complainant.

In the introductory paragraph of FERC's order on the complaint, FERC outlined its perspective on the impact of out-of-market payments on the PJM capacity market. FERC said, and I'll quote, "Over the last few years, the integrity and effectiveness of the capacity market administered by PJM Interconnection have become untenably threatened by out-of-market payments provided or required by certain states for the purpose of supporting the entry or continued operation of preferred generation resources that may not otherwise be able to succeed in a competitive wholesale capacity market." The order goes on to discuss how it is likely that out-of-market payments to generation suppress prices within the capacity market, thereby distorting the price signals set through the yearly auction.

This is significant because the capacity market relies on those price signals to incentivize efficient market entry and exit. That is to say, the price signals are an indicator as to when an uneconomic asset should exit the market and when an economic asset should enter or remain in the market. Over time, accurate price signals and efficient market entry and exit ensure that resource adequacy is maintained across the PJM region in the most economically efficient manner, a key component of reliability at lowest reasonable costs.

The concern over the impacts created by these potential price distortions led FERC to declare that PA's capacity market is unjust, unreasonable, and unduly discriminatory. The finding that PJM's capacity market is unjust and unreasonable requires PJM to address and remedy the deficiencies cited by FERC as the underlying causes for the finding.

In response, PJM submitted a proposal to FERC that included an expansion of the current rules that prevent these kinds of price distortions in the capacity market to all types of resources instead of just new natural gas combined-cycle units to which it currently applies. The PJM proposal also offers an alternative option for capacity resources that receive material subsidies from a state through which they could avoid application of these expanded rules. If approved by FERC, this option would be available to capacity resources in Pennsylvania that receive a material subsidy through the AEPS or other state-directed mechanisms.

The base rules would be an expansion of what we call the minimum offer price rule, or MOPR. Under the MOPR, the capacity resource would be assigned a minimum price to be used in its bid for the capacity auction. If the MOPR price is too high, the resource will likely not clear in the auction, and thus, will not receive capacity revenue. And failing to clear in the capacity market would most likely exacerbate revenue challenges that led to the need for a material subsidy in the first place.

The alternative option under PJM's proposal would, in the event a resource was concerned its MOPR price was too high to clear the auction, allow the resource to remove itself -- in other words, carve itself out -- as well as a commensurate amount of load or demand from the capacity auction altogether. PJM would then procure only the quantity of capacity necessary to meet the remaining demand on the system, and the carved out resource would receive a PJM capacity commitment identical to that of those that are actually cleared through the auction.

While this option would not in and of itself remove the price suppressive effect of a resource with a material subsidy, it would preserve the opportunity for a state to directly compensate the resource for its capacity value as opposed to having that revenue stream come from the capacity market itself. This option also ensures that such a resource would be counted among the set of capacity resources on which PJM would rely.

This option would extensively require Pennsylvania to pass both legislation authorizing a resource owner to choose the carve-out option and a mechanism for the state to compensate resources required to meet the demand or load that has been carved out of the option. My understanding is that House Bill 11 -- Section 8.2 was included in anticipation of this need.

In addition to these provisions, accommodating state policy decisions with respect to capacity resource and to address the price suppression that would otherwise remain, PJM also proposed a method to establish a competitive clearing price through the auction so that Pennsylvania and other states continuing to rely on the price signals set by the markets to ensure long-term resource adequacy for the remainder of its resourcements could rest assured that the markets will continue to perform that function effectively.

Again, now FERC requires PJM to alter its capacity market in some fashion to protect against the price suppressive effects of proliferating subsidies. It does not result in PJM taking a position in support of or opposition to House Bill 11. The fact is simply that FERC has determined that the kind of out-of-market payments contemplated by House Bill 11 impact the capacity market and that PJM must respond to that finding.

Given Pennsylvania's reliance on the efficient operation of these markets for the continued provision of resource adequacy at least cost, I would expect Pennsylvania would be supportive of these efforts on the part of PJM and FERC.

If approved, PJM's capacity proposal pending before FERC would likely result in Pennsylvania capacity resources eligible for the Tier III AESP credit receiving capacity revenue directly from a state-implemented mechanism as opposed to the competitive markets. Much of the discussion around the need for the Tier III credit contemplated by House Bill 11, as well as the granting of zero emissions credits in states like Illinois and New Jersey, center on state policy aspirations to reduce carbon emissions from electricity generation.

In all of the states that have contemplated or are contemplating out-of-markets payments to nuclear generation based on carbon emission presumptions -- excuse me, aspirations -- the question of carbon pricing arises as an alternative. A price on carbon emissions generally integrates well with PJM's current markets. This is true in Maryland and Delaware, two states in PJM that participate in regional greenhouse gas initiatives, or RGGI, and generators in both states are able to include RGGI prices for carbon when they bid into the PJM energy market.

While PJM recognizes the economic efficiency of addressing emission concerns by pricing carbon, please let me be clear that PJM does not have the authority to actually implement a carbon price. PJM is not a regulatory authority whether it be for environmental air quality or any other policy making reason. PJM believes that if a state wants a price on carbon, that price must come from the federal government, a state government, or through state agreements such as RGGI. Again, to be clear, PJM has no role in authorizing a price for carbon emissions, nor would it play a role in setting administrative prices for carbon emissions.

Where PJM can play a role is in developing market-based mechanisms to help mitigate state impact between states within the PJM region that do or do not choose to implement carbon pricing. PJM stakeholders recently voted to commence a process to examine that very issue.

The outcome of that process will not result in PJM creating a carbon price or attempting to mandate that any state be required to do so. Rather, the process will determine whether and what market rule enhancements may be necessary to ensure that states implementing a price on carbon emissions enjoy the full benefits of doing so, while minimizing any cost shifts to states that do not elect to implement a carbon price.

While I'm on the subject of carbon emission pricing, I would like to address statements made in Pennsylvania and elsewhere insinuating that PJM's markets are flawed because they do not place a value on carbon-free generation or provide compensation to generators that have low-cost emission -- I'm sorry -- low-carbon emission attributes.

It is true that PJM's market do not inherently value carbon-free generation. As it is being discussed here, though, carbon emissions are an externality. By definition, externalities are not valued in a market unless, generally, a policy-making entity has made the decision to assign a cost to that externality.

The omission of such an externality is by no means unique to PJM's markets. PJM's markets can, however, be leveraged to bring the benefits and discipline of competition to a state's carbon mitigation policy goals, but it requires that state to authorize a cost to be assigned to those carbon emissions.

In the discussion on House Bill 11, and the discussions on similar bills in other states, PJM and its markets have been occasionally maligned for allegedly valuing resources exclusively when they are the lowest cost electricity provider over the next five minutes. This is a mischaracterization.

It is true that as the system operator for the PJM region, we are charged with the responsibility of matching generation and load on an instantaneous basis. It is also true that we settle on an energy market on a five-minute basis so that we can use price signals at a level of granularity and on a frequency that incentivizes behaviors conducive to maintaining reliability and system stability. It is incorrect, however, to say that our markets, prices, or processes go no further than low cost for five minutes.

First, our energy and ancillary service markets are designed to incentivize multiple attributes necessary to maintain reliability over the next five minutes, the next hour, the next day, and so on. Additionally, PJM's capacity market procures resources to ensure supply adequacy looking ahead three years. Finally, PJM's transmission planning process looks out over the next 15 years to ensure that our total system can maintain reliable electricity service for the foreseeable future. Together, PJM's markets, information platforms, and planning processes value assets necessary for reliability over the immediate, short, medium, and long-term time frames.

I hope that my appearance before the committee and the conversations you have had both formally and informally with other PJM employees provide a comfort level that PJM is vigilantly ensuring that electricity production and transmission are reliable today and will be so into the foreseeable future. I also hope that you feel that PJM and our markets are bringing demonstrable value to Pennsylvania, its residents, and its businesses.

PJM sincerely respects Pennsylvania's prerogatives regarding state policy, but also takes very seriously our responsibility to ensure that as long as our markets are relied upon to provide cost-effective reliability for the region we serve, those markets need to be able to function effectively.

No matter the outcome of House Bill 11, the debate over carbon emissions and the potential to assign a price to them will continue. While PJM will not be the ones to implement a carbon price, we stand ready to help you understand how carbon pricing can integrate with the wholesale markets to the benefit of Pennsylvania.

Chairs Roae and Matzie, and distinguished members of the committee, again, I thank you for the opportunity to present my testimony today, and I look forward to answering any questions you may have.

MAJORITY CHAIRMAN ROAE: Thank you, Mr. Bresler, for your testimony.

We're going to have the questions at end of the hearing, so -- if that's okay. Sometimes questions might be answered by, you know, more than one of the testifiers. So the questions are going to be at the end.

Our next testifier is going to be Gladys Brown Dutrieuille, who is the chairwoman of the Pennsylvania Public Utility Commission.

Thank you so much for being here today to testify. And when you're ready, you may begin.

MS. DUTRIEUILLE: Thank you.

Good morning, Chairman Roae, Chairman Matzie, and members of the House Consumer Affairs Committee.

I am Gladys Brown Dutrieuille, chair of the commission, and I'm happy to come and discuss and testify before you concerning House Bill 11 and also provide you with some general background in terms of the electric market in Pennsylvania and our commission's stance on the bill and some of the impacts of the bill.

So just to give you some background in terms of Pennsylvania's electric market, starting with the passage of the Electricity Generation Customer Choice and Competition Act of 1996 and progressing through the Alternative Energy Portfolio Standards Act of 2004, the Commonwealth finds itself host to a vibrant electric generation landscape.

In 2018, Pennsylvania's generation fleet was comprised of about 44,753 megawatts, the largest amount of state install capacity in the PJM Interconnection footprint. When compared with a peak demand of about 30,000 megawatts, Pennsylvania finds itself operating as a significant electricity exporter.

Equally important is the press of diversity of the Pennsylvania fleet. On an install capacity basis, the state's fleet is comprised of approximately 38 percent natural gas, 26 percent coal, 22 percent nuclear, 4 percent oil, 5 percent hydro, 3 percent wind, and less than 1 percent of solar.

Further, the retail competition market has been fairly successful with over 32 percent of customers, and about 65 percent load, enrolled with an electric generation supplier. Diversity of generation and competitive market forces have worked in tandem to facilitate reliable and economic electricity in the Commonwealth.

So thus, in our view, this is a positive story when compared with the pre-Competition Act in terms of the electricity marketplace. At that time, the state's electricity prices were significantly higher than the national average. And I know you have heard that before. Adjusted for inflation, the price for electricity in the PJM regional transmission organization territory that Pennsylvania belongs to, has increased just slightly from a little over $37 per megawatt hour in 1999 to a little over $40 per megawatt hour in 2018. Further, the amount of generation available above and beyond the projected peak demand, otherwise known as the reserve margin, was about 22.9 percent for the years 2017, 2018.

Two main drivers have led to our state's current market success, and the first one is the advent of natural gas production and corresponding natural gas fueled electric generation. The second is the fostering of competitive forces established by the economic deregulation of the electric generation market.

On the topic of natural gas fueled generation, breakthroughs in drilling technology have dramatically altered the economics of the commodity. As such, the price for natural gas has decreased from $8.86 per MMBtu in 2008, to $3.15 per MMBtu in 2018. This shift in natural gas prices facilitated an opportunity to increase the use of the resource as a fuel for electric generation. Therefore, multiple new facilities have been constructed in the state totaling over 5,000 megawatts of install capacity, and there are more, as you know, natural gas generation facilities being planned for operation in the near future.

Since wholesale energy prices are unregulated, the competitive marketplace dictates the value of energy. The marketplace does this through a set of routine auctions. These auctions utilize a stack of offers which meet expected demand at the least cost while also leading physical deliverability requirements.

The pendulum shift of investment toward natural gas created a shake-up in previous price formation dynamics. Historically, coal generation plans were the predominant price setters. The influx of this cheap natural gas generation capacity transitioned the price setting economics to natural gas fleet. And this has been the case for a number of years. So initially, this price shift largely affected coal plants and was a significant driver in the retirement of a large portion of install coal capacity.

Now the sustained effect of natural gas on electricity prices has begun to affect the economics of nuclear plants. Over recent years, many of the nuclear plants in Pennsylvania have reported reduced profit margins or potentially lost money. Further, future prices indicate that some nuclear plants are expected to continue realizing smaller margin or negative margin.

Case and point is Three Mile Island Nuclear Generation Facility, or TMI, since this facility's output is limited. Because it relies on a single reactor, its economics are more challenging.

This leads to the policy question the general assembly is now setting out to address. Should the general assembly, in order to achieve certain public policy goals, intervene in this largely competitive marketplace or is it prudent to permit the current marketplace design to run its course?

As we look at AEPS, the current AEPS is market-driven program, which requires electric distribution companies or electric generation suppliers to include as part of their retail electric sales certain resources of renewable generation. This is accomplished through the acquisition and retirement of Tier I, which includes solar, wind, low-impact hydro, as well as Tier II, which includes waste coal, large scale hydro power, and municipal solid waste.

Alternative energy credits -- as an amendment to the AEPS, House Bill 11, which we are discussing today, creates a new Tier III set of resources characterized by zero emissions. Tier III includes a number of those resources already included in Tier I, as I stated earlier, such as solar, wind, low-impact hydro, and geothermal, while adding the additional qualifying resource of nuclear.

The Tier III credit requirement is 50 percent of the Commonwealth's retail electric sales. Tier III credits would be valued based on the price of Tier I credits with a hard floor and a ceiling ultimately controlling the credit valuation.

In a manner which deviates from the design of Tier I and Tier II credit markets -- which assigns liability for compliance to all the various low-serving entities, such as EDCs, EGSs operating in the Commonwealth -- under House Bill 11, EDCs are responsible for purchasing all of the Tier III credits, including those associated with the electric generation supplier load, necessary to meet the 50 percent mandate for the entire electric demand in their perspective service territories.

Further, in contrast to the existing AEPS design, which permits all qualified facilities the opportunity to be certified for Tier I and Tier II credits, only a limited number of Tier III resources necessary to reach the 50 percent target would be qualified. The commission would qualify the required number of generators through a ranking process which prioritizes each applicant's environmental benefits provided to the Commonwealth for a six-year period.

Finally, House Bill 11 includes a provision to permit AEPS qualified resources to opt out of the local RTO centralized capacity auction, and thereby receive a substantial revenue stream through alternative means -- a substantive revenue stream through alternative means.

The impact of House Bill 11, we recognize as a commission that there are a number of public policy variables being considered in the context of this proposed intervention. These impacts include, but are not necessarily limited to, things like the local economies, the tax, taxes, jobs, environment, electrical liability, the generation fleet diversity, wholesale electric prices, and customer electricity costs.

As an economic regulator -- and I emphasize that, we are the economic regulator -- it is incumbent on us, on the commission, to monitor policies that have a material effect on electric customers' prices. To the contrary, it is not in the commission's purview to offer official input associated with the impact of local economies, taxes, and jobs. Further, while the commission does indirectly address policies pertaining to the environment, we respectfully defer the discussion of this topic to the Department of Environmental Protection, which will be coming up later.

As to the topic of electric reliability, PJM has conducted studies to review the effects on grid reliability of the potential retirements of TMI and Beaver

Valley nuclear generation facilities. Both studies have concluded that the retirement of TMI and Beaver Valley will not adversely affect the reliability of the wholesale electric grid. The retirement of TMI will require no further investment in transmission as a direct result, while the retirement of Beaver Valley will require upgrades to the transmission system located near or around that generation facility totaling approximately $180 million.

On the topic of the generation diversity, the makeup of the existing Pennsylvania generation fleet is quite robust. As explained earlier, nuclear makes up about 22 percent of the install capacity in the Commonwealth. The retirement of both TMI and Beaver Valley would reduce the nuclear install capacity by roughly 2800 megawatts, or about 28 percent of Pennsylvania's nuclear fleet capacity. So holding all else equal, this would reduce the total share of Pennsylvania's nuclear fleet install capacity from the current 22 to 16 percent.

The effects on wholesale power prices is also an important variable to analyze in the discussion.

There was a 2008 Penn State University study that analyzed the effect of the retirements of TMI and Beaver Valley and what effect that would have on these prices. The study provided two results which are informative. First, if no new generation were to be built to replace these nuclear facilities, energy prices would rise in a range of four to ten percent each year over the next three years. Conversely, if the lost nuclear capacity is replaced by natural gas fueled generation, which is probably the likely outcome, the wholesale energy prices would decrease in a range from nine percent to twenty-four percent each year over the next three years.

Finally, the commission has analyzed the overall credit costs from a Tier III program. The commission's initial analysis of House Bill 11 resulted in an estimated minimum cost annually of about $420 million to an estimated maximum annual cost of about 550 million. These estimates are based on projected electric usage for the 2020 calendar year, the cost of AEPS Tier I compliance credits for the 2017 compliance year, and the price floor and ceiling formally established in House Bill 11.

So for a residential customer using approximately, about 500 kilowatts, the average monthly cost would range about $1.50 to $2 a month. For a residential customer that's using about 2000 kilowatts per month, the cost would range from about six to eight dollars per month. For businesses consuming substantially more electricity, the cost would correspondingly be higher. For example, a large commercial customer using about 200,000 kilowatt hours per month would see a range of cost of about 600 to $800 monthly.

So in terms of the implementation by the commission in House Bill 11, we know that the bill places a substantial amount of responsibility on us to administer the Tier III program. House Bill 11 would require the commission to solicit and evaluate applications in the participation in the Tier III program, as well as select and range qualified applicants, establish the price of Tier III credits, facilitate the transfer of credits to EDCs, coordinate payments for the credits to the Tier III sources, and monitor Tier III compliance.

The unique design of House Bill 11 makes it challenging for the commission to estimate the overall cost for administering this program. Specifically, the projected cost for the external administrator contract is challenging to gauge without issuing a formal request for information.

Nonetheless, estimates for contract costs for an administrator to manage the Tier III requirements and projecting internal costs for analytical, legal, and administrative work results in an initial total commission cost estimate of about 2.5 million annually. And I respectfully emphasize that this is initial costs.

In terms of our position, you have heard us say that we are neutral on House Bill 11. We recognize that the general assembly must weigh various public policy objectives as it considers this proposed legislation. We envision our role as an objective facilitator of the dialogue around this legislatively process.

Since the passage of the Competition Act back in 1996, the commission has placed an increased focus on the energy arenas within our direct economic and service quality-based regulatory authority, such as electric deliberation costs and reliability metics.

Our role in the wholesale generation landscape is limited to the general oversight to ensure that policy movements do not negatively affect Pennsylvania's competitive retail market, reliability, or affordability. To that end, the commission's stance since the Competition Act was passed has been supportive of competitive wholesale markets insofar as they deliver reliable service at reasonable costs. Nonetheless, it is appropriate for the general assembly to consider changes in the direction of policy from time to time, such as that being considered under House Bill 11.

The commission respectfully wishes to shed light on a few important issues within the current draft of House Bill 11.

Because the commission is the economic regulator, we would be remiss in not pointing out that the legislation will provide considerable out-of-market revenues to all nuclear generation in the state regardless of whether or not the plans require financial assistance above that provided by the PJM wholesale markets. Based on information provided by the PJM Independent Market Monitor, only TMI is clearly financially troubled at this time.

Payment of Tier III subsidies to all Pennsylvania nuclear plants would result in higher capacity market payments by Pennsylvania customers should FERC approve capacity market proposals filed by PJM. Additionally, a number of energy and ancillary service reforms are under consideration by PJM. And you've heard about them from Stu currently.

Energy price formation, fuel security, and resilience, which all have the potential to raise energy prices to the benefit of nuclear generation, these additional revenues would be an additive to those provided under House Bill 11 and would ultimately be borne by the ratepayers. Further, PJM has convened a stakeholder process to study how to incorporate various carbon pricing options into the markets.

With regard to the commission's administrative duties enumerated under House Bill 11, the commission submits that House Bill 11 does not provide sufficient time to perform certain key functions. First, House Bill 11 permits no time for the commission to complete an implementation proceeding. Ideally, the commission would have six months to nine months to complete a proceeding which provides detailed guidance to interested stakeholders. This would allow for a more transparent and orderly implementation of the generator application rankings, the EDC's funding mechanisms, the publishing of the Tier III prices, and the Tier III credit requirements, and securing a contract for a Tier III administrator.

Also, House Bill 11 presently only permits the commission 90 days to review and rank the generator applications. This process includes determining that the applicant is zero omitting, that it satisfies the interconnection and emission requirements, that it meets the financial and ownership requirements, and ranking all applicants to determine which receive Tier III credits and which do not. And we respectfully ask that this time table be extended to about 180 days.

Additionally, House Bill 11 establishes sequence time lines for the transfer of and payment for Tier III credits. These include the following: Thirty-five days for the transfer of all credits from Tier III resources to the program administrator, seven days for the EDCs to purchase Tier III credits from the administrator, and finally, seven days for the transfer of the Tier III credit revenues from the administrator to the Tier III resources.

The commission submits that these time tables are untenable. First, it is unlikely that EDCs will have final billing quality usage data for the entire year within 35 days. Availability of such billing quality you see stated is vital to calculating Tier III credit requirements. Equally important, the seven-day time lines for collection and disbursement of Tier III revenues would be extremely challenging given the dynamics associated with these tasks and the magnitude of dollars channeling through the program administrator.

Therefore, the commission seeks consideration of an extension of all three time lines, or in the alternative, a design which the commission does not act as intermediary for collection and disbursement of Tier III funds, but simply acts in an administrative role by determining the number of credits each EDC purchases and from which resource.

Finally, with regard to administration, House Bill 11 does not provide an explicit funding mechanism to support the commission's budget. Given the breath of responsibilities placed on the commission in House Bill 11, we ask that this committee give consideration to placing an explicit funding mechanism in this bill.

So in closing -- I know that was a lot of information. But in closing, we hope that this testimony has helped frame a better understanding of Pennsylvania's electric markets, the projected impacts -- as we see it -- of

House Bill 11, and the commission's enumerated responsibilities under this bill.

This is a very complex bill and we emphasize that. It is very complex. It represents a profound shift in energy policy for the Commonwealth. But we are happy to work with the committee and the general assembly as a whole and the Governor to facilitate your thoughtful consideration and deliberations during this legislative process.

MAJORITY CHAIRMAN ROAE: All right. Thank you for your testimony.

And again, we're going to save the questions for after all of the testifiers.

So next we're going to have David Althoff -- I apologize if I pronounced that wrong. He's the director of the Energy Programs Office at the Department of Environmental Protection.

Whenever you're ready, sir.

MR. ALTHOFF: Thank you.

Good morning, Chairman Roae, Chairman Matzie, and members of the committee.

My name is David Althoff and I'm the director of the Energy Programs Office in the Pennsylvania Department of Environmental Protection. I would like to thank you for the opportunity to appear before you today to discuss the Alternative Energy Portfolio Standards Act, the department's role in administering it, as well as the recommendations for program improvement, which I hope to focus on.

Pennsylvania's Alternative Energy Portfolio Standards Act enacted in 2004 and administered by the Public Utility Commission, in cooperation with the department, requires that 18 percent of electric power come from alternative and renewable energy resources, including eight percent from renewable resources like solar and wind by 2021. The standard has helped grow the clean energy industry in Pennsylvania while providing support for the developed deployment of clean energy options to Pennsylvania businesses and homeowners.

As of 2017, more than 1300 megawatts of wind power and 285 megawatts of solar have been installed in Pennsylvania. These resources have brought in billions of dollars of capital investment in Pennsylvania. For the 2017 reporting period, 14.2 percent of electricity sold to retail customers was produced by qualified alternative and renewable energy providers from both in-state and out-of-state resources.

So DEP plays an important role in administering the Alternative Energy Portfolio Standard. The AEPS Act directed that DEP ensure that all qualified alternative energy resources meet all applicable environmental standards, and in addition, verify that an alternative energy resource meets the eligibility definitions and criteria set forth in the act.

Additionally, the act instructed the DEP to work cooperatively with the PUC to monitor the performance of all aspects of the act and work collaboratively in the provision of an annual report to the Senate and House of Representatives. The annual report includes the status of the compliance by electric distribution companies and electric generation suppliers, current costs of alternative energy for all alternative energy technologies types, cost associated with the alternative energy credits program, the status of alternative energy marketplace, and recommendations for program improvements.

Throughout each reporting year, the Energy Programs Office works together with the PUC and the AEPS administrator to conduct an environmental compliance review to ensure those facilities with environmental permits are maintaining operations in compliance with all applicable environmental standards. In addition, DEP assists the PUC in ensuring that all energy resources meet the requirements of the act and we work together to review alternative energy data and trends from the AEPS program to gain insight into the energy marketplace within Pennsylvania. Lastly, as instructed by the act, my office also works closely with PUC staff to review and help develop, as I mentioned, the annual report to the legislature documenting these compliances and trends.

So in the 2017 reporting year, we identified several trends. It's notable that for the Tier I non-solar requirement, which drives the substantial majority of the AEPS program's investments, 26 percent of the credits came from Pennsylvania, 27 percent came from Illinois, 24 percent came from Virginia. Wind energy, 80 percent of which comes from outside of Pennsylvania, produced nearly half of the Tier I credits. Hydro, biomass energy, and landfill gas produced most of the rest of the Tier I credits.

Overall, according to the PUC's 2017 annual report, the cost of the Tier I non-solar requirement was approximately 98 million. In practical terms, this means that roughly 26 million was invested in renewable energy credits, RECs, generated within Pennsylvania, while 73 million was invested in RECs generated elsewhere, I would note within the PJM territory.

For the solar PV requirement, 39 percent of the retired credits originated in Pennsylvania, while 48 percent came from North Carolina, 5 percent from Ohio, 4 percent from Virginia, and the remaining other 4 percent from other states within the PJM territory.

Looking forward, however, the number of solar credits coming from out of state is expected to drastically decrease due to the passage of Act 40 of 2017, which closed the border on solar credits by allowing only facilities located within Pennsylvania to be eligible for solar credits. This act will now allow AEPS to support more in-state investment in new solar deployments rather than existing out-of-state solar installations.

Furthermore, expanding that eligibility requirement to all Tier I resources would increase the development of in-state alternative energy resources. As only 26 percent of all Tier I credits retired in 2017 came from Pennsylvania, closing the borders for the remaining Tier I resources would allow Pennsylvanians to maximize the environmental and economic benefits that are currently being received by other states.

For the Tier II requirement, which requires 8.2 percent of the electricity portfolio, 66 percent of retired credits are the result of energy production from Pennsylvania resources, while the remaining third come from energy resources in Virginia and West Virginia. Waste coal, it's notable, produced nearly two-thirds of the available Tier II credits from 16 eligible facilities, while hydro pumped-storage produced approximately the remaining one-third of the credits.

It's also important to note that the Tier II credit price, which averaged 16 cents in 2017 compliance year, is not nearly the robust incentive as the Tier II -- or Tier II resources as compared to Tier I credit prices, mainly due to oversupply of eligible resources in the Tier II bucket.

The entire investment driven by Tier II credit requirements in 2017 was almost $2 million, 1.7. The exact number is in your written testimony.

Opportunities for program improvement -- when the original AEPS Act was passed 15 years ago, Pennsylvania took a position as a leader in alternative energy development. Pennsylvania's alternative energy portfolio standard has been critical to helping to grow our clean energy resources both in-state and in the PJM region. This has helped to diversify our electricity generation portfolio over the last 15 years. There is, however, still significant room for improvement.

As a part of the department's responsibility to provide recommendations to the AEPS program, and given that the AEPS program is one of Pennsylvania's critical clean energy policies, the department included analyses of potential adjustments to the AEPS Act in the Pennsylvania Solar Future Plan and the updated 2018 Climate Action Plan.

The Department's -- Pennsylvania's Solar Future Plan presented 15 strategies to increase solar generation to 10 percent of in-state electricity consumption by 2030. All 15 strategies are in your written testimony, I will highlight two of those.

Increasing the AEPS solar carve-out and implementation of a carbon pricing strategy were two of the top cross-cutting strategies listed in the Pennsylvania Solar Future Plan.

Since the AEPS legislation passed in 2004, nearby states have set significantly more aggressively renewable targets, especially for solar. Maryland, Delaware, and New Jersey have set solar targets at 2.5 percent, 3.5 percent, and 5.1 percent respectively, while Pennsylvania's solar target remains at 0.5 percent of supplied electricity.

The Solar Future Plan recommends increasing the solar carve-out to between four to eight percent by 2030. Analysis conducted as a part of the Solar Future Plan predicts that greenhouse gas emissions would likely decrease by 9.3 percent if the solar future goals are met.

Other states have also included aspects of their portfolio standard that incentivize energy innovation and develop a clean energy economy. Additions to an alternative energy portfolio standard can include such things as storage technologies that would bridge the intermittency of solar and wind technologies, building more local distributed generation projects to result in additional resiliency to the grid, and creating micro-grid systems.

The Climate Action Plan, just released last week, includes over 100 actions that government, businesses, and citizens can take to both mitigate and adapt to climate change. The plan sets targets in line with Governor Wolf's recent executive order aimed at reducing greenhouse gas emissions 26 percent from 2005 levels by 2025, and 80 percent by 2050.

If all states achieve similar greenhouse gas reduction targets and other nations met comparable goals, climate science analysis suggests that global temperature rise could be kept below the two-degree Celsius threshold cited by experts as the level beyond which dire consequences would occur.

The department's analysis team quantitatively modeled 15 of the actions, including actions such as increasing the AEPS, investing in renewable energy generation, increasing energy conservation and energy efficiency, and more. Using just those 15 actions, the analysis team projected greenhouse gas emissions would decrease 21 percent from 2005 levels by 2025, and 36 percent by 2050.

Specifically, the team quantified a number of actions related to the electricity sector. Three of those actions are as follows: Increasing the alternative energy portfolio standard Tier I targets to 30 percent by 2030 with a 6 percent solar carve-out, and then increasing to a 50 percent Tier I target by 2050. Another action would be implementation of a policy to maintain nuclear generation at current levels whether through zero emission credits, inclusion in the AEPS, or some other mechanism, or limit carbon emissions through an electricity sector cap-and-trade program.

The analysis found that implementing those three actions could have significant environment benefits. In fact, the analysis in the Climate Action Plan states that just increasing the AEPS Tier I targets to those levels would reduce in-state emissions an average of 16 million metric tons of CO_2 equivalent per year from 2020 to 2050. Additionally, the modeling results showed that each action was cost effective. The Climate Change Act of 2008 requires that the department include cost effectiveness as a part of the analysis when considering recommendations in the Climate Action Plan.

In closing, as we near 2021, the department is encouraged to see the legislature looking ahead to ensure Pennsylvania continues to grow our in-state clean electricity generating resources while supporting next generation alternative energy and renewable energy technologies.

The AEPS Act states that DEP shall make

recommendations for AEPS program improvements. We look forward to continuing to work with the legislature to provide input on how the AEPS Act can help Pennsylvania not only reduce emissions, but also maintain our status as an energy leader by increasing competitiveness with neighboring states in development and deployment of clean and alternative energy resources.

This concludes my testimony today. I thank you for the opportunity to provide it and I look forward to questions.

MAJORITY CHAIRMAN ROAE: Thank you for your testimony.

I'm going to break my own rule and ask one quick question.

So is the Department of Environmental Protection, as far as House Bill 11, are you neutral, supportive, or opposed to the legislation?

MR. ALTHOFF: I would say that we are neutral.

MAJORITY CHAIRMAN ROAE: Neutral, okay. That's what I thought. I just wanted to make sure.

All right. Well, thank you for your testimony.

And we'll start following my own rule again, the questions will be after everybody testifies.

Our next person -- unless Chairman Matzie wants to break the rules also. Next is going to be Tanya McCloskey. She is the acting consumer advocate for the Office of Consumer Advocate.

So when you're ready.

MS. McCLOSKEY: Thank you.

Good morning, Chairman Roae, Chairman Matzie, and members of the committee.

Thank you for having me here today to discuss House Bill 11. These discussions are critical to consumers, as any decisions will have a profound impact on consumers' energy bills, as well as the type of energy service that consumers receive.

In representing Pennsylvania's utility consumers, my responsibility is to ensure that Pennsylvania consumers enjoy safe and reliable service at reasonable prices. For electric service, consumers should have an electric system that is reliable, efficient, economic, environmentally sustainable, and diverse.

I've provided written testimony with various attachments containing information and data. In the interest of time, I will touch on a few key points here today.

In 1996, the Commonwealth made a decision to utilize competitive wholesale generation markets to meet the electric needs of consumers in Pennsylvania. In my view, our decision was well placed, particularly as it concerns the wholesale markets for electricity. Our competitive wholesale markets have now produced a diverse array of generation, serving the needs of customers in the PJM region, lower emissions of carbon and other pollutants, and lower prices for consumers.

I understand the concern that the success that we have achieved in PJM in reducing generation prices has made it more difficult for some existing power plants to operate profitably. The particular concern that is the subject of the proposed legislation is the nuclear plants in Pennsylvania.

In my view, however, we should not simply turn away from market mechanisms that have worked so well and impose hundreds of millions of dollars annually in unnecessary, out-of-market subsidies on ratepayers.

Under House Bill 11, my office has estimated that the annual cost to consumers is between 422 million and 548 million based on the proposed floor and ceiling price. Over the first six-year term of the proposal, between two and a half billion and 3.3 billion of ratepayer funds would be transferred to the shareholders of major generating companies without any showing of financial necessity or financial distress.

You have heard from the representatives of industrial customers, and will hear today about the impact on small businesses. I wanted to touch briefly on the impact on residential customers.

While the monthly or yearly impacts we have calculated for residential customers might not look significant to you and me, we must always remember how many Pennsylvania residents struggle to make ends meets.

In Pennsylvania, approximately 300,000 households live at or below 50 percent of the federal poverty level. For a family of three, that would be an income of less than $10,665 per year. Approximately 1.25 million Pennsylvania electric customers have incomes below 150 percent of the federal poverty level. These low-income households report that they go without food, medicine, and adequate heat in order to pay their utility bills. What may seem the smallest increase can force many Pennsylvania households to make difficult and often life-changing choices.

These ratepayer funds would be mostly paid to owners of nuclear units that are already showing a profit in today's wholesale markets, and based upon the PJM's market monitors' analysis, have been profitable for most of the years since 2008 when the analysis began and will be profitable through 2021. Only one Pennsylvania unit, TMI 1, a single station plant, is uneconomic in today's wholesale market.

Simply put, House Bill 11 provides a $500 million a year solution to a $60 million a year problem. The remainder of the payment is a windfall to already profitable plants exclusively from Pennsylvania consumers. This is simply not a cost-effective means to achieve any goal.

It is important to remember that Pennsylvania ratepayers have already paid over 11.2 billion in stranded costs, about 6.8 billion to 9 billion for nuclear assets, as we restructured our electric industry to move to a model that utilizes the competitive markets for supplying our electric generation.

Pennsylvania used what was referred to as a once-and-done approach to stranded cost, meaning that there was no true-up or reconciliation of the estimated market prices to the actual market prices. When actual market prices exceeded the estimates we used and the nuclear units were more profitable in the wholesale markets than expected, those profits were retained by the nuclear plant owners.

House Bill 11 would now create a heads-I-win, tails-you-lose situation in which nuclear plant owners retain the benefits of high profits achieved when market prices were high, but then receive a subsidy when market prices are low. The lack of any required showing of financial necessity is a fatal flaw in House Bill 11, in my view.

House Bill 11 is harmful to ratepayers in other ways. On page 6 of my testimony, I discuss several of the other significant concerns with House Bill 11 that must be considered. One concern I would mention is with Section 8.2 on capacity payments to alternative resources that Mr. Bresler noted in his testimony.

Section 8.2 may be inconsistent with retail choice in Pennsylvania. The section assumes a certainty in load for the load serving entity that does not necessarily exist when customers can switch suppliers as frequently as they wish. As Chair Brown Dutrieuille noted, we have 65 percent of our load with alternative suppliers, and we have, at this time active, over 70 to 100 alternative suppliers.

Direct subsidies can distort our wholesale markets, increase customers bills without commensurate benefit, and as the PJM market monitor has often said, become contagious. Direct subsidies place the proverbial thumb on the scale for certain resources at an additional cost to ratepayers. House Bill 11 heavily weights the scale for existing nuclear resources that have already received substantial ratepayer support and could divert scarce resources from other efficient, innovative, and cost-effective solutions.

Rather than perpetuate out-of-market subsidies, I think it is critical that we identify our specific long-term energy goals, determine to what extent the cost of achieving those goals properly lies with Pennsylvania utility ratepayers, ensure that the cost of achieving the goals is commensurate with the benefits, and identify the market mechanisms we can use to achieve those goals. Market mechanisms such as setting a price on carbon or establishing a cap-and-trade program and joining the regional greenhouse gas initiative are two possible approaches if our goal is to reduce carbon.

Importantly, while these mechanisms would increase energy prices to consumers, the proceeds from these market mechanisms are returned to the state and can be used for a number of purposes, including reducing ratepayer bill impacts, supporting energy efficiency or renewable resources, and supporting effective communities. At the same time, the higher energy prices would provide added revenue to the state's nuclear fleet.

It is possible that in the short term market-based solutions may not fully close the gap in ensuring that necessary resources are available to achieve our goals. Approaches such as a need-based support for financially distressed units and enhanced portfolio standards that are targeted to closing demonstrated gaps in market development may be needed. Such approaches, if needed, must be accompanied by consumer protections to ensure that electric rates remain just and reasonable.

On page 9 of my testimony, I provide some of those key protections and key principles that should be included in any consideration of out-of-market subsidies.

Respectfully, I cannot support House Bill 11 as it would harm ratepayers and would not advance the goal of a reliable, efficient, economic, environmentally sustainable, and diverse energy supply in a cost-effective manner.

I stand ready to work with this committee and staff to craft a bill that protects and benefits ratepayers, addresses workers and communities, benefits the Commonwealth, and advances our energy goals.

Thank you again for inviting me to testify. I look forward to continuing to work with your committee on these important matters.

MAJORITY CHAIRMAN ROAE: Thank you for your testimony.

And our final testifier is going to be Shelby Linton-Keddie. She is the assistant small business advocate from the Office of Small Business Advocate.

So when you are ready, you may begin.

MS. LINTON-KEDDIE: Good afternoon, Chairman Roae, Chairman Matzie, and distinguished members of the House Consumer Affairs Committee.

Good afternoon, as well, to my esteemed colleagues from PJM, PUC, DEP, and OCA.

My name is Shelby Linton-Keddie, and I serve as an assistant small business advocate with the Office of Small Business Advocate. The Small Business Advocate John Evans regrets that he was unable to join us today, but has asked me to provide the committee and other interested stakeholders with the OSBA's position with House Bill 11. Thank you again for inviting us to share our thoughts.

The OSBA is charged with representing the interests of Pennsylvania's more than 650,000 small business utility customers in proceedings before the Pennsylvania Public Utility Commission, any comparable federal regulatory energy -- or, sorry -- agencies and in the courts. The OSBA statutory duty is to ensure that small businesses, so crucial to the Commonwealth's economy, pay reasonable rates for safe and reliable utility service. With this statutory duty in mind, the OSBA cannot support House Bill 11 as written.

As everyone is aware, the Commonwealth deregulated the generation of electricity in 1996. Deregulation also permitted utilities across the Commonwealth to recover their stranded costs for assets that were no longer used and useful. Specifically, by 2011, Commonwealth utilities recovered almost $9 billion in compensation for their nuclear assets.

Despite deregulation and years of stranded cost recovery, the Governor, the legislature, and the statutory advocates still spend a lot of time talking about generation. This is a direct result of the fortunate fact that the Commonwealth is a net exporter of energy. As has been explained numerous times in these proceedings, Pennsylvania is second in the country for nuclear production, second for natural gas extraction, and third for coal production. While that's excellent news for the Commonwealth, it results in a lot of competing interests.

As proposed, House Bill 11 would amend the Commonwealth's Alternative Energy Portfolio Standards Act to add a new obligation for electric distribution utilities. Specifically, those utilities would be required to purchase credits from a specific set of energy resources equivalent to 50 percent of the electric demand served in their territory, inclusive of default service and electric generation supplier sales. This 50 percent mandate would be in addition to the existing 18 percent mandate for Tier I and Tier II renewable resources. Consequently, for most of Pennsylvania, credits for 68 percent of the power consumed in these utility territories would be tied to alternative energy services outlined in the AEPS Act.

The proponents of House Bill 11 argue that the passage of this bill will level the playing field for nuclear generators, properly value low or no carbon emissions, and save jobs. The OSBA respectfully submits that House Bill 11 will do none of these things. Rather, if passed in its current form, House Bill 11 would be an unprecedented legislative mandate in favor of nuclear generation, it would thwart electric competition, and it would add an additional $3 billion to the bills of 5.8 million Pennsylvania consumers. And please note that that $3 billion is not inclusive of 12 to 15 million just referenced by the PUC here this morning.

Furthermore, although Exelon asserts that Three Mile Island will cease operation if this bill is not passed by June 1st, House Bill 11 will not, by objective analysis, do anything to save the fate of TMI. For all these reasons, the OSBA cannot support this bill.

One of the major tenets behind the Electric Generation Choice and Competition Act is that by deregulating generation, generators, and their shareholders -- not electric ratepayers -- will bear the risk and reap the reward of the wholesale and retail competitive markets. As a result, end use customers, including small businesses, would be the recipients of lower electricity prices resulting in more efficient, competitive, and innovative generation options.

Since 2010 and '11, when rate caps expired for most of the Commonwealth's electric utilities, combined with expanded Marcellus Shale gas exploration and extraction, the electric price in the Commonwealth dropped. Not only has competition grown, but also PJM currently enjoys a more diverse portfolio of generation resources than at any other time in its history. This diversity is the organic result of a changing generation mix, with a reduction of coal and nuclear resources and growth in natural gas and renewables. Such changes are expected as the market continues to grow and evolve. This is definitive proof that competition is working.

Picking winners and losers, as House Bill 11 attempts to do, will stifle competition of the wholesale and retail electric markets as consumers will no longer be able to freely choose either the type or price of generating resources. Instead, House Bill 11 would require customers to pay for a certain percentage of credits tied to House Bill 11 generating resources regardless of whether a consumer directly utilizes that type of resource. This result is great for the owners and operators of the generator named in the AEPS Act, but it puts all other generating resources at significant competitive disadvantage.

What's more troubling in the OSBA's view is the cost projection and potential burdens that will be thrust upon consumers if House Bill 11 passes as proposed.

While the proponents of House Bill 11 attempt to minimize the impact of this legislation as a few dollars each month, for Pennsylvania's critical small businesses, the expected increases, estimated at approximately $1300 a year or more annually, will have a significant impact on both the marginal costs and operation of these businesses.

If House Bill 11 passes in its current form, small business owners may be forced to absorb these increases personally, pass through these increases to customers, delay pay raises for workers, or delay hiring new workers. Any of these results cut into a small business' bottom line, which would cause a stall or decline in small business growth across the Commonwealth. Such a decline would negatively impact the Commonwealth's economy.

In conclusion, the OSBA affirms that this office does not favor one generation source over another. However, to force 5.8 million customers to pay an additional $3 billion for little benefit, which essentially amounts to a windfall handed to the nuclear industry, is neither just nor reasonable.

I thank you for your time and attention today and I welcome any questions or comments you may have in response to this testimony.

MAJORITY CHAIRMAN ROAE: Thank you for your testimony, as well.

And thank you to all the testifiers for efficiently going through your testimony. We're a little bit ahead of schedule, which is good, because I think it's valuable for the members to have a lot of opportunity to ask questions of the testifiers. So we're going to have, you know, close to almost 50 minutes for questions here till we have to be up to the floor for session.

But I'm going to start out here with the questions.

Is that a bad thing?

We're going to allot one minute for the back row and forty-nine minutes for the front row, I think is how we're going to do it. No.

My question is, when you look at the $500 million price tag, the way its set up with the way that we export so much electric, and when you look at how that's all set up, the way House Bill 11 is set up, would PA consumers pay that whole cost or would the people, the states where we export electric help absorb some of that approximately $500 million cost?

MS. McCLOSKEY: Maybe I'll take that first.

Yes, the entire 500 million would be on PA consumers. And again, the benefits, because we are still trading energy, the energy benefits would still flow out-of-state in similar proportions to what they do now.

I think I'd contrast that again to a carbon price or a cap-and-trade where the additional carbon price or cap-and-trade allowance price is placed on all energy, so it's paid for by all energy throughout the PJM region. The benefits then are returned to Pennsylvania.

MAJORITY CHAIRMAN ROAE: So the situation we've had with, you know, solar and wind, where out-of-state companies were getting some of the money, would out-of-state companies get some of this Tier III money, as well, the way House Bill 11 is written? Does PJM or PUC, anybody have any insight on that?

MS. DUTRIEUILLE: I don't think there's a limit, per se, in terms of out-of-state companies. I know some of that discussion was in New Jersey. But we can get you some more information.

PJM might be able to have more of a response on that.

MR. BRESLER: Yeah. I'll add my understanding from reading the bill itself. And my understanding is similar to the chairman's opinion, where I think the resources that get the credits are required to be in the PJM region, but not in the state of Pennsylvania, to my understanding.

MAJORITY CHAIRMAN ROAE: So based on what we know now, the $500 million cost would all be paid for by PA residents, but that $500 million wouldn't necessarily all stay in PA. Some of that could go to nuclear plants in other states.

MS. DUTRIEUILLE: Within the --

MAJORITY CHAIRMAN ROAE: Within the PJM footprint.

MS. DUTRIEUILLE: Correct.

MS. LINTON-KEDDIE: And then, respectfully, I would like to just add the qualifier that the only customers that would be forced to pay for it are those customers of electric distribution utilities, of which there are 11. As you know, the rural electrics and cooperatives, their customers would not be paying that.

MAJORITY CHAIRMAN ROAE: Okay. Well, thank you so much.

Chairman Matzie.

MINORITY CHAIRMAN MATZIE: Thank you, Mr. Chairman.

Thank you all for your testimony here.

First of all, for the record, I'm for closed borders for all tiers because we shouldn't be paying for anybody else, in my opinion. Whether it's legal or not is another story. I know there's some question as to whether or not our Constitution would allow for that to occur.

Obviously, we didn't do a carve-out for solar and it has been challenging, but that's just my statement. Because if the will of this general assembly is to do this bill or language similar to this bill or anything related to what we're discussing in House Bill 11, that needs to be part of the discussion, quite frankly, in this individual member's mind.

Anyway, a lot of discussion relative to how complex this is -- and I've been saying that for the last two and a half years. It's just the issue of nuclear generation, as far as the Commonwealth of Pennsylvania is concerned. I know everybody has kind of sort of touched on some of those things and talked about a variety of things.

There's stuff in this bill, in its current form, dealing with things that Pennsylvania normally doesn't deal with. This is stuff that's normally dealt with at the federal government. And we've had that discussion and that's come up a couple of times during some of our hearings. So that's what adds to the complexity of this legislation.

There's a section at the end dealing with fixed resource requirement. I don't even know what that is. You know, I had to look it up and try to figure out exactly what it was. We had our discussion about it and I kind of sort of have an idea as to what that is.

But in a nutshell, if FERC were to do something or the feds were to do something, then Pennsylvania would have to comply. And by doing this, then we would comply as a result of the language being in there.

Well, you know, the federal government tells us to do a lot of things and normally gives us an opportunity to change a statute to take over. So I don't even know why its in here. My opinion is the bill should be about three pages if we're even going to have a bill, but again, that's just opinion. Got that off my chest.

A lot of talk about stranded costs today, as well. Section 8.2 was mentioned by a couple of testifiers today. In a nutshell, the monetary effect of implementing Section 8.2, could we go over that again? Can anyone give us their little tidbit on Section 8.2 again? I think it's worth discussing again.

MR. BRESLER: Yes.

Thank you, Chairman Matzie. This is Stu Bresler.

So the proposal that PJM filed at FERC, as a result of FERC's order on PJM capacity market, proposes this resource carve-out option. So for a resource that has what we term an actionable subsidy, meaning a subsidy that meets the criteria that we filed, which this bill would be, the base rules again would be the minimum offer price rule would apply to those resources. That would present a risk for those resources that that minimum offer price would be so high that it wouldn't clear in a capacity auction. Therefore, it wouldn't receive a capacity commitment and not receive any capacity revenue, right, through the market.

The result of that for a state like Pennsylvania, if Pennsylvania decided to still keep the resource around, is that they'd have to buy capacity for their load through the capacity auction, but also pay the subsidy necessary to keep the resource around. It's been referred to as we're paying twice for capacity.

So FERC required PJM, and PJM included in its filing, this resource carve-out option in order to avoid that risk of paying twice. So what would happen is a resource that has an actionable subsidy that was concerned that its minimum offer price would be so high that it would then not clear in the auction could instead elect to carve itself out of the auction.

And what PJM would do is, we would carve out that resource, as well as the equivalent amount of demand. So that resource would not get paid through the auction and the load associated with it would not be charged through the auction. But rather, the state would take responsibility for compensating the resource what it needed in order to stick around, and then charge the load that amount, as well.

PJM would only procure, then, what is necessary for the rest of the load, and therefore, we would eliminate again that paying twice, because only the necessary amount of capacity would be procured overall.

The net impact of the load in the state, though, is they end up paying the same thing. Because they either pay the clearing price through the auction, assuming the resource would clear and not get pulled out of the auction, it would pay the clearing price of the auction and the amount of subsidy on top, right? Whereas, if the resource is carved out along with that associated amount of load, all the load pays is the total amount necessary to keep the resource around and doesn't pay any more for the capacity through the auction.

So I would argue that as a result of the carve-out option we included, the load in the state doesn't pay any more or any less, likely, than they would otherwise pay. The impact of the carve-out is that the entirety of what's necessary to keep that subsidized resource around stays within the borders of the state. So that --

If you look at sort of what happens if there's a resource that clears in the auction and then gets a subsidy on top of that, what it's getting paid through the auction could come from anywhere in the PJM region, right? Whereas, according to the carve-out, every dollar that that resource needs to stick around is then allocated to the load in that state that is associated with that resource.

And so I think that was really FERC's intent of requiring the carve-out option, was to keep the impacts of that subsidy within the borders of the state.

MINORITY CHAIRMAN MATZIE: Thank you. Thank you.

Thank you, Mr. Chairman.

I'll save some questions for the end, if we have some time. Thank you.

MAJORITY CHAIRMAN ROAE: Thank you.

Next is Representative Mackenzie.

REPRESENTATIVE MACKENZIE: Thank you, Mr. Chairman.

And thank you to all of the panelists. I thought we had great testimony today. So I appreciate your insights.

My questions, I want to follow up on what Chairman Matzie was talking about.

So specifically to PUC and PJM, it seems like Section 8.2 is establishing like a PA specific capacity payment program, it seems. And so why would we want to do that, and is that something either of you requested or had input on? And also, you know, how would that be different than what PJM currently does?

MS. DUTRIEUILLE: Let me see if I can answer the first part of it, in terms of how is it different.

It is, what you explained in terms of, it's like a PA auction market, where currently it's done through the PJM.

We were asked the question in the Senate, "Did we request this language?" We did not. We didn't request any specific language in either pieces of legislation in either House.

It is different in the sense of, also, we would be getting, the PUC would be getting more back into the generation side, which we currently, under legislation, are not part of the -- we do not have oversight over generation. So it would be very different for us. And with the complexity of this language and whatever intent is behind it, it's not something that we can give a full and complete answer to. It's something that we would definitely just have to delve into and try to figure out exactly what's going on.

But I think PJM can offer the other side of it.

MR. BRESLER: Well, thanks, Representative Mackenzie.

All I'll say is PJM certainly did not request anything specific in House Bill 11 by any stretch.

With respect to the resource carve-out option that we proposed to FERC, what I would say is that PJM has actually been searching for a way to accommodate these state decisions in ways that preserve the wholesale market's ability to, again, provide resource adequacy at the lowest cost in the long-term. So in other words, to accommodate these state decisions, but avoid the, sort of the price distortive effects of these out-of-market payments.

And so we think this combination of this resource carve-out option, along with another one additional set of complications that we filed that allow us to come up with a competitive price to that wholesale auction -- those two things together would do that. They would accommodate these state decisions, but again, preserve, again, the efficacy, if you will, of the wholesale prices.

REPRESENTATIVE MACKENZIE: Okay. Great.

Thank you, Mr. Chairman.

MAJORITY CHAIRMAN ROAE: Next is Representative Neilson.

REPRESENTATIVE NEILSON: With no timer, right, Chairman?

Thank you all for your testimony here today. Just a couple of quick questions because I was getting ready for that normal format.

Ms. Brown, you testified today some of the effects that will happen, and I want to get a little more into it.

If, like, Beaver Valley closes, in your testimony, you told us that there's a $180 million investment needed. Who pays for that $180 million?

MS. DUTRIEUILLE: I believe my testimony talked about if Beaver Valley would close, there would probably be some need for remission --

REPRESENTATIVE NEILSON: Upgrades to our transmission.

MS. DUTRIEUILLE: -- to the transmission.

REPRESENTATIVE NEILSON: Yeah. So we're going to have to do some infrastructure improvements, approximately $180 million. Who pays for that price tag?

MS. DUTRIEUILLE: Ultimately, that would be the ratepayer.

REPRESENTATIVE NEILSON: So the consumers would also pay for that, as well?

MS. DUTRIEUILLE: Correct.

REPRESENTATIVE NEILSON: And this is something that we've seen across the country, the nuclear energy and the subsidies needed to keep them going. And with your colleagues or anything, have you seen like -- what have you, your expertise, seen other people doing? I mean, if we do nothing, where are we? What happens?

I mean, I know we just got a $180 million buildup. We just -- that was the last question. But where does it stop?

We saw in your testimony, I believe it says energy prices will go up in addition to that $180 million bill we're going to have to pay. How about, what comparison, your expertise -- I don't want to put you on the spot of what we should be doing, but we know we have to do something here. And it's the what we have to do.

MS. DUTRIEUILLE: That is the part where the commission would work with the general assembly to figure out the what of what they want to do.

But what we were noticing from other states around us -- Illinois, New York, New Jersey -- they, of course, have been discussing this issue in terms of some type of subsidy for nuclear energy and have passed legislation. And I know that Ohio is also going through the process, the legislative process of this, as well.

And it really is individually what each state needs in what they're discussing. And that's why we keep saying, whenever I come before any of the committees, that we should take part in the discussion, we should be part of it, but we should not give the entire answer because I don't think that we're able to do that.

We, from the '96 legislation, do not have jurisdiction or oversight over generation. So as I laid out in my testimony and as we have said time and time again, it's not appropriate for us to talk about different issues that don't come under our purview. But we can give you the information that we do have and serve as that resource and will continue to do that.

I don't know if that answers your question. That was a long one.

REPRESENTATIVE NEILSON: No, it does because I understand the department and I understand what the PUC does. And a lot of people don't, but I just wanted to make sure they do. And today being a public hearing, I wanted to make sure they heard it from you.

Thank you, Chairman.

MAJORITY CHAIRMAN ROAE: All right. Thank you.

Next is Representative Nelson.

REPRESENTATIVE NELSON: Thank you, Mr. Chairman.

And thank you for your testimony.

My initial question is for Chairman Dutrieuille.

From the PUC side, in your testimony, there were two parts to it. The first, it seemed that the PUC maybe had a little bit higher cost impact on Pennsylvania and consumers, like going from that $1.50 to $6. Maybe that's a pretty big range, because it would make sense, some residents might use more natural gas than others, going to the OSBA, about 5.8 million customers. Can you quantify the average cost? I think in HB 11, they were thinking like

500 kilowatts that a family may use. Is there a much bigger residential range or is that -- and it's okay if that's too detailed of a --

MS. DUTRIEUILLE: No. I think it was in my testimony and that's why I'm looking for it while you were talking.

I think the range went from a 500-kilowatt household to maybe 2,000. So that was the range that I gave in my testimony.

REPRESENTATIVE NELSON: Okay. So that 500, that's the floor of the estimate, then?

MS. DUTRIEUILLE: Just to give examples, yes.

REPRESENTATIVE NELSON: Okay. That's extremely helpful, then, because in getting feedback from some of our local businesses on the cost impact, it seemed to be much higher than that initial reading.

And if I was understanding the last part of it, when you cited the Penn State study, because new nuclear -- or because natural gas facilities are pending to be installed and have been installed, you're anticipating, if there were some new closures, that Pennsylvania electrical rates would actually decrease because of the replacement with natural gas?

MS. DUTRIEUILLE: We are not anticipating. We are --

REPRESENTATIVE NELSON: But the study -- sorry.

MS. DUTRIEUILLE: Correct, we are citing the Penn State study.

So it gave -- if there's no replacement, if TMI and Beaver Valley were to close and they gave no replacement of that generation, you would see the increase in cost. But if they were replaced by natural gas generators, which has been the practice over the last several years, because of the fact of Marcellus Shale here in this state, you would see a decrease in the cost.

But that was from that study.

REPRESENTATIVE NELSON: Okay. Yeah, that was somewhat complicated. So thank you very much. I appreciate it.

Thank you, Mr. Chairman.

MAJORITY CHAIRMAN ROAE: The members are doing really well today keeping questions brief. So I think that's great. We'll actually have some time for a second round probably today.

Next is Representative Schweyer.

REPRESENTATIVE SCHWEYER: You spoke too soon.

Thank you, Mr. Chairman.

Chairman Dutrieuille, hello.

I want to follow up on Representative Nelson's question about the Penn State study. First, did you commission that study? I'm just kind of curious.

MS. DUTRIEUILLE: I don't believe we commissioned it.

REPRESENTATIVE SCHWEYER: I'm not sure who did, so -- okay. I was just going to --

MS. DUTRIEUILLE: I mean, I can find out, but I believe that we --

REPRESENTATIVE SCHWEYER: That was just sort of a random -- I'm kind of curious who requested it. I mean, I'm as neutral of a party in this entire thing as possible. So I was just kind of curious.

In that specific study, going back to what Representative Nelson was asking, there was the -- and we understand that if there's less capacity being generated, to replace that with natural gas may lead to a price decrease, nine to twenty-four percent. I'm wondering if that's factoring in the perspective of the completion of the Mariner East pipeline.

MS. DUTRIEUILLE: I do not know that. I could -- we could try to find out more information for you, but I do not have that answer.

REPRESENTATIVE SCHWEYER: Simply just getting a copy of the study might be helpful. Because I think one of the things we keep hearing from our, from the folks in the nuclear industry is that this could very well be a temporary bridge till the price of gas is increased through accessibility of the global marketplace, through this, et cetera, et cetera, et cetera. So I'm kind of curious where that study would come down with that particular perspective in one of the other many complicating factors that is tinkering with the energy marketplaces, this may be. And I'd like to follow up with you.

But also to Ms. Keddie -- did I say that right, ma'am?

MS. LINTON-KEDDIE: Yes.

REPRESENTATIVE SCHWEYER: Okay. Thank you.

One of the things that we haven't talked about a tremendous amount throughout this entire process has been the EDCs and how the EDCs would be impacted by House Bill 11, given that the overwhelming majority of Pennsylvanians receive their electricity through the use of an EDC, at least that I'm aware of.

Does the PUC, Small Business Advocate, does anybody have any thoughts on how House Bill 11 would impact the EDCs, and therefore, the consumers?

MS. LINTON-KEDDIE: I mean, I can give you a quick answer because prior to working for the Office of Small Business Advocate, I did work for an EDC.

I mean, I don't know what the exact cost estimates are, but similar to the administrative costs that the PUC has. I mean, there would most certainly be administrative costs tied to EDC responsibilities under this fact. If you decide to single line item the cost associated with this provision rather than lump it in with the distribution charge, there would be IT costs, there would be bill costs, things like that.

But I mean, because I no longer work for an electrical distribution company, I cannot, beyond generalizations, answer your question with specificity.

REPRESENTATIVE SCHWEYER: That's fair.

MS. DUTRIEUILLE: I think I would have to chime in, as well.

In terms of generalizations, we have not come out with any, you know, specific information that would, say, impact on one EDC versus the other. And because they're all different --

REPRESENTATIVE SCHWEYER: Sure.

MS. DUTRIEUILLE: -- it's going to come out differently, as well.

REPRESENTATIVE SCHWEYER: Sure.

MS. DUTRIEUILLE: So I think the Energy Association would be the one to forward that question to.

REPRESENTATIVE SCHWEYER: That's fair.

And, Mr. Chairman, with your permission, one last follow-up, and I won't ask for a second round.

Ms. McCloskey, in your testimony about the floor and ceiling with the 500 versus 2,000 lot in the households, does that include any potential decrease in cost that would be passed on to the customer by the EDCs?

MS. McCLOSKEY: No, it does not.

REPRESENTATIVE SCHWEYER: That's just the rate of --

MS. McCLOSKEY: It doesn't include the additional cost that the commission would incur. It's just from the Tier III price.

REPRESENTATIVE SCHWEYER: Okay. So there's a possibility and a likelihood that that number would increase. Now, whether it's a few cents or a few dollars, we have no idea. We'd assume the lower end of that, but still, there would be an additional cost passed forward.

MS. McCLOSKEY: That's correct.

REPRESENTATIVE SCHWEYER: Okay. Thank you very much.

Thank you, Mr. Chairman.

MAJORITY CHAIRMAN ROAE: All right. Next is Representative Mehaffie.

REPRESENTATIVE MEHAFFIE: Thank you, Mr. Chairman.

My question is for Ms. McCloskey.

We've had a -- sorry, I moved. I had to step out for a minute.

The question I have is -- and this goes back to Representative Neilson's question -- because it seems to me through this hearing that we're having, cost runs and 180 million and other things -- I asked this question at the last hearing when it came down to the large energy producers. There is a study out by Brattle Group, if doing nothing happens, the cost of that. Have you taken that into, or done a study if the nuclear power plants go out of business and, you know, the price of gas goes up and we go through these costs, do you feel there's going to be a larger cost and has any study been done by your group?

MS. McCLOSKEY: I've taken a look at the Brattle Group study, and I do have concerns with the assumptions. And in fact, PJM could probably speak better to that with the Brattle Group.

We have not done an independent study of what the impact would be on the PJM markets upon plant closure. But again, PJM has the facilities to run their own simulations and production cost models, and could -- based on the requirements and the sequence that they see -- could probably provide that information.

REPRESENTATIVE MEHAFFIE: So --

MS. McCLOSKEY: But again, I do think the Penn

State study was more in the neighborhood of giving us some boundaries based on the more realistic assumptions as the operations of the PJM markets.

REPRESENTATIVE MEHAFFIE: Right. And when I spoke to the maker of the Penn State study, he said that was in a perfect world. So if nothing happens and if there's no major catastrophes and we don't have any weather, polar vortexes, or whatever, that's where that came into play. So I do understand that.

But at the same time, you know, we already heard, and the representative said, there's $180 million in cost, that if these plants go out of business, they're going to have these costs that are going to fall back on the ratepayer anyway. At the same time, you know, the Penn State study, it says that's if gas remains at the cost it is today. If that price of gas goes up $1 per MCF or whatever may happen, you have to agree with me that the price of electricity is going to go up a lot higher than what we're estimating right now, correct?

MS. McCLOSKEY: Well, I don't think I can agree with that, because that somewhat assumes all else equal. And again, I think PJM could probably run this more precisely.

But as gas prices would increase in the PJM markets, the wholesale markets would respond. They would not stay exactly as they are today. Energy efficiency would increase, demand response would increase, different types of resources would come on. And those are the type of simulations they have.

But the point is that the competitive markets will respond to any increase or changes in fuel prices to start to produce the most cost-effective, in the least cost way of dispatching the system in a reliable manner. So I think we'd have to ask PJM to run that simulation to get us the right numbers.

REPRESENTATIVE MEHAFFIE: Okay.

Thank you, Mr. Chairman.

MAJORITY CHAIRMAN ROAE: All right. We're going to start round number two.

Thank you, again, to the members for keeping your questions brief.

My question is, when you go to that PA Power Switch, you know, website or whatever it's called, where consumers can pick -- you know, they want to get all solar panel electric or, you know, whatever, is there an ability to have a nuclear option only on there? Does state law allow that? Because I didn't see that on there as an option for people to pick.

MINORITY CHAIRMAN MATZIE: Nuclear energy.

MS. DUTRIEUILLE: Our PApowerswitch.com

website --

MAJORITY CHAIRMAN ROAE: Yes.

MS. DUTRIEUILLE: -- is a website that provides a platform for electric generation suppliers to lay out the different plans that they have. Now, there are certain plans that EGSs may offer to say it's all renewable energy. And renewable is the general term that they use.

I would always say that, as things evolve, that's something that we would have to look at, if the general assembly would decide to pass something.

But even with the emphasis of renewable energy, what we say to consumers is that it all goes into one pot. So they're picking a plan that says that it's a renewable plan, but it doesn't mean that the electrons that go into your house are all from renewable energy. So we emphasize that part.

MAJORITY CHAIRMAN ROAE: Now, people that pick a plan that is renewable, does that tend to be competitive or is it a little bit more expensive or a little cheaper or what, compared to, you know, other options?

MS. DUTRIEUILLE: We've seen different things over the years where it did start out as usually a renewable plan was a little bit higher, but it was the desire of the consumer to pick something like that. So it just depends, once again, on the EGSs and the plans that they're able to offer at a particular time.

MAJORITY CHAIRMAN ROAE: Would the nuclear power option only probably be more expensive?

MS. DUTRIEUILLE: I have no idea.

MAJORITY CHAIRMAN ROAE: Okay.

And then the second part of my question, which isn't really that related, is back when the AEPS law was passed, the, you know, electric co-ops were exempted. I wasn't here then, so I don't know what happened there exactly. But apparently, they did not want to be included in that. And now they're supporting, you know, House Bill 11. They seem to be concerned with carbon dioxide emissions now.

I was wondering, if -- just for the sake of argument -- if we brought the electric co-ops into the AEPS Tier I and Tier II, would that cause any problems with, you know, the PUC or with, you know, PJM or anybody? Because I realize they're not really regulated by the PUC like the other companies are. But would it have any appreciable reduction in pollution and would it create any kind of difficult, you know, administrative duties if we brought them into AEPS?

MS. DUTRIEUILLE: Generally, that's an interesting question. The general response is that it's difficult to have jurisdiction over someone you don't have jurisdiction over.

So it would be my personal opinion -- we'd need to see how you're drafting the language -- but I think it would be problematic in some sense. It's just difficult to answer that question when we don't currently have jurisdiction over co-ops. And I don't know that co-ops would want us to have jurisdiction over them.

MAJORITY CHAIRMAN ROAE: Okay. Well, thank you so much.

Next we have Chairman Matzie.

MINORITY CHAIRMAN MATZIE: Thank you. Thank you, Mr. Chairman. Thank you, again.

For both the DEP and PUC, what roles would you play if, in fact, we had a decommissioning of a nuclear plant in Pennsylvania, that you're aware of?

MS. DUTRIEUILLE: That I'm aware of? You know, that's a difficult question, because most of it would come through the Nuclear Regulatory Commission and all that, but we can get back to you on that.

MINORITY CHAIRMAN MATZIE: Okay.

MR. ALTHOFF: Yeah, same answer.

We have a Bureau of Radiation Protection that does all of the inspections and involvement with the NRC relative to our nuclear assets in Pennsylvania. So we have a bureau that's in charge of that. It's not a part of my office.

MAJORITY CHAIRMAN ROAE: That kind of goes back to what my statement earlier was. A lot of this stuff that we're dealing with isn't normally dealt with in the state Houses. It's dealt with in Washington, D.C.

For the Consumer Advocate, in looking at what other states have done to this point, has there been any implementation in any of the other states in regards to assisting or aiding those in the low-income territory? I know you mentioned that in your testimony about, using some percentages as to who may or may not be affected by House Bill 11 if passed in its current form.

But is there an increase -- like LIHEAP, has LIHEAP been raised in some of these other states or other programs?

MS. McCLOSKEY: As far as I know, there's been no direct, no direct support for low-income customers as part of any of the other bills.

The other bills that have been passed, though, have supported things such as energy efficiency programs, further energy efficiency programs, that often can be used to serve low-income households and help them to reduce their bills. So they have been partnered with support of other types of renewable energy efficiency demand responses.

But I'm not aware of whether or not they have a specific low-income carve-out.

MAJORITY CHAIRMAN ROAE: Same thing for the Small Business Advocate. Anything for small businesses to maybe take advantage of, a different type of program for individual businesses, that you're aware of?

MS. LINTON-KEDDIE: Nothing specifically comes to mind.

You know, to piggyback on what Tanya was saying, I mean, my understanding of AEPS is that it would not impact the currently available universal programs that all of the electric distribution companies have. You know, sometimes there are specific grants that a small business could get, but I mean, the amounts are expanded a little bit more.

But I mean, I do want to say, just as a reminder, electric distribution company customers -- again, those 5.8 million -- already pay $244 million annually for energy efficiency and conservation. So I mean, if we're going to delve into that and open that up, I think that's going to be a whole host of other conversations we should be having.

MINORITY CHAIRMAN MATZIE: Sure. I think it was worth asking the question.

And then my last question, which is the basic question -- and I know everyone has given their opinion of whether they're for, against, or neutral on this bill in all the hearings that we've had. And I've asked this question privately to a lot of people, as well. What's the cost to consumers if nothing happens, if we do nothing? Are prices going to go up? Are they going to stay the same?

I mean, I know we've had sort of similar answers to questions asked like that, but I think it's just a pretty basic question.

MS. LINTON-KEDDIE: I'm going to go out on a ledge. And you know, I've been thinking about this since last Monday, when a lot of the questions were asked particularly about, you know, we can't predict the future of nuclear, we can't predict the future of gas prices. But I mean, the only thing I know with certainty, Representative, is that if you pass this bill, it's going to cost consumers $3 billion. I do know that.

MINORITY CHAIRMAN MATZIE: That's fair.

MS. McCLOSKEY: I agree with OSBA.

I would say that we do know that energy prices are going to go up because PJM already has some initiatives in place that are raising our energy prices, which again will flow to the benefit of the nuclear units. I think PJM is probably best positioned to analyze for us what would happen if TMI closed.

MINORITY CHAIRMAN MATZIE: Sure.

MR. ALTHOFF: I'm going to take it from a little bit of a different perspective and say that, you know, our nuclear generation fleet in Pennsylvania is a zero carbon emitting generating source. And losing a portion of that will cause the market to react and backfill.

Depending upon what we would like to see from an environment attribute standpoint depends on the policy choices that we make at this point in time. So what we do know is that closing of a nuclear asset will, in fact, reduce our progress towards meeting our climate change goals.

And so these policy decisions related to the attributes of energy generation and what we would like to have is that the future relative to the environmental benefits we get from those generations sources are certainly a part of this discussion.

MS. DUTRIEUILLE: I think the way I would answer the question is really piggybacking on some of the things that Tanya had mentioned about -- and I think I've mentioned also in my testimony that this issue is so complex. And I've tried to -- in the testimony, we as a commission, tried to delve in a little bit in terms of, if certain plants would close -- we mentioned TMI and Beaver Valley, which I know is in your district -- and if there were no replacement, we gave some of those figures.

In terms of trying to address if all nuclear plants would close, which I've heard from previous testimony and others, for us as a commission, that's just too hard to try to delve into. It's something that we would look to PJM to try to give us more information about.

MR. BRESLER: Yeah. Thanks.

Let me just start out by reiterating that PJM is neither a proponent nor an opponent of this bill or any other bill in front of this committee or this general assembly. But I'll say a couple of things.

Like I said, Pennsylvania has chosen to embrace competitive markets. And I think the track record of competitive markets is that they have worked to ensure liability at low costs over time.

It seems to me contrary to the whole notion of competitive markets that it would end up reducing or minimizing the price outcomes to provide an otherwise uncompetitive resource and out-of-market subsidy in order to remain in the market. What I think you look for from competitive markets is that competition drives entry and exit decisions, and therefore, results in, again, the lowest cost and the lowest cost mix and resources in the long-term.

I think some of the competitiveness -- competitiveness is the wrong word. But some of the shortcomings, if you will, of some of the studies that have been done in the past is they tend to isolate only one aspect of the overall market results, that typically being the energy market. And it shouldn't surprise anybody that all other things being equal, if you take an uneconomic resource that is injecting energy almost around the clock and you remove those injections, that the energy price in and of itself would go up. That's common sense, right?

But again, I think when you try to step back and look at the big picture, again, that's only one piece of the overall economics that we're talking about here. So again, it's like I said, contrary to the whole notion of these competitive markets that are subsidizing resources that would otherwise exit the market to keep them around would wind up somehow being cheaper in the long run.

I'll stop there, but just some thoughts, again, for your consideration.

Again, from PJM's perspective, what we've been trying to come up with is a way that we can accommodate these decisions should they be made and still let the wholesale markets continue to function as they have been.

MINORITY CHAIRMAN MATZIE: Well, I think the word of the day, and if I was a copy editor of a newspaper and I was writing a headline for today's hearing, the headline would be "complex," because I really think that's something that has continually come up in all of the hearings we've had. You know, those in favor of House Bill 11 have had to prove that nuclear generation in Pennsylvania is, in fact, in dire straits, and without a policy change in state government, plants will close. And that was part of the reason we had these hearings.

And when we started the bipartisan, bicameral nuclear caucus a couple of years ago, two and a half years ago, efforts were to provide education about the nuclear industry in Pennsylvania and really give us that information for everybody to consider, as a fact, that would decide to do something from a policy perspective.

The goal in my judgment was to preserve jobs, impress upon, not only policymakers, but the public, that nuclear energy was clean and that in order to have a diversified energy portfolio, nuclear generation needs to remain in Pennsylvania.

I've said many times in public and private that it was important for us to have a dialogue regarding nuclear energy generation in Pennsylvania in these four hearings. And I thank you again, Mr. Chairman, for having these four hearings. We held the informational hearings also that we had and individual discussions proved it to be very important and crucial for us as policymakers to make an informed decision.

Furthermore, I have also raised the point about how Pennsylvania is different than other states that have entered into policy to the benefit of nuclear energy.

We have a diversified energy generation portfolio. We export 24 percent of all energy that is generated in Pennsylvania. We heard from experts that said if one plant or two plants would go offline, Pennsylvania would still be able to provide more than 100 percent of its needs and still be an exporter of energy. Again, important stuff that we heard.

Whether or not we decide to run this bill, whether or not we decide to, you know, entertain an amendment to this bill remains to be seen. And, you know, I'm a minority chairman. That's your corner, Mr. Majority Chairman, and obviously to the majority party. But I'm just thankful again publicly.

Mr. Chairman, I wanted to thank you for doing this. I think it was important. Very complex, and I've said it many, many times before, that I'm from an all energy area. I've got it all in southwestern Pennsylvania, so this is a very difficult decision from a policy perspective because, as the chairman said earlier, we have to consider everything -- jobs, economy, what it does to our communities, et cetera, et cetera, as well as energy prices.

So again, I thank you, Mr. Chairman.

MAJORITY CHAIRMAN ROAE: Thank you. And we're going to sneak in a couple more here. Real quickly, Representative Nelson.

REPRESENTATIVE NELSON: Thank you, Mr.

Chairman.

My question initially was -- I'm following up from a PCN interview they had. And you know, we represent Pennsylvanians and we had a caller kind of remind us that plutonium is also traded, I guess, on the global market. And in a scenario where we would mandate that 50 percent of our energy purchased through NUCs -- if plutonium prices went up, what would happen in that regard to Pennsylvania's power?

MR. BRESLER: I have to admit I am not an expert on plutonium prices and the relative cost of plutonium compared to other fuels. Hypothetically, right? It's just like the question you were asked before, if natural gas prices go up, what would happen? Well, one of the benefits of competitive markets is they very quickly and transparently show the movement of the underlying fuel costs, right?

So I guess, hypothetically, plutonium prices could increase to the point where those resources would no longer be marginal, like they are today. In other words, their costs would go so far below the typical marginal cost of energy, in which case they would no longer be in the dispatch stack where they are today. And they would become more the marginal resource, I guess. That seems like it would be unlikely.

So from a wholesale market price, I can't imagine it making really any difference. However, it would certainly increase the cost of operation of these facilities, in which case, I would think that the amount the subsidy necessary to keep an uneconomic resource around would go up, if their fuel costs went up.

I guess that's about all I can say about it.

REPRESENTATIVE NELSON: Yes. And then the --

MAJORITY CHAIRMAN ROAE: Thank you, Representative Nelson.

REPRESENTATIVE NELSON: Thank you.

Thank you, Mr. Chairman.

MAJORITY CHAIRMAN ROAE: Representative Neilson.

REPRESENTATIVE NEILSON: Thank you, Chairman.

And I just want to echo, no real question, Chairman Matzie's appreciation for having these hearings. And "complicated" is definitely the word.

We're talking about tens of thousands of jobs, consumers, and how our environment is protected, as well, going into the future. And I just wanted to thank you for having these hearings and look forward to the further discussion so we can get a good bill.

And people ask me sometimes what a good bill is. A good bill is when you have four interested parties, five interested parties, at the table like we have here today testifying before us. And when we get a final piece of legislation, you're all walking outside with a frown on your face. To me, that's a good bill.

So I look forward to working with the other members of the committee and both chairmen to making a bill, piece of legislation, that makes sense for Pennsylvania to move forward.

Thank you again, Chairman.

MAJORITY CHAIRMAN ROAE: And we have Representative Mackenzie.

REPRESENTATIVE MACKENZIE: Thank you, Mr. Chairman.

I just want to ask another clarifying question. This one of the Consumer Advocate.

So it was page 9 of your testimony. You had a list a key principles and projections that you would include. Just specifically, if you can hit on, it looks like bullet point number four is about true-up reconciliation or reconciliation, five is about a cap or a limitation, and then the final bullet point about a sunset provision. If you can just specifically expand on those and how you would see those working in practice.

MS. McCLOSKEY: Sure.

Just quickly, the term of a true-up reconciliation mechanism, we're looking at today's market prices. And in fact, when this discussion began in 2016, energy prices had increased by 30 percent, and as I mentioned, they're going to go up again based on PJM initiative. So the amount of subsidy that we're looking at today may not be necessary into the future.

We already know that all of the other plants are profitable. So I think you always have to keep in mind if we award a subsidy of any kind, that it should be covering a gap and you have to know throughout time what that gap is and make sure that you're only providing a subsidy needed for that gap.

In terms of a cap or limitation on monthly bill impact, for example, Illinois has a 1.65 percent cap on the monthly bill. So the subsidy cannot increase a customer's bill, any customer's bill, by more than 1.65 percent.

And then on a more definitive sunset provision, the bill is unending. It could go on indefinitely for 20 or 30 years. So it doesn't have a sunset provision or an opportunity to come back and take a second look at whether or not these subsidies are needed or make any sense in the evolving PJM markets.

REPRESENTATIVE MACKENZIE: And you mentioned other states in your last example there. So in sunset provisions, have other states that have taken this up, have they included sunset provisions?

MS. McCLOSKEY: Other states have shorter terms. New Jersey has a three-year term, then it's looked at again, in terms of there's another filing to look at the need. And I believe Illinois has a provision, a term provision, but I don't have it, exactly what it is.

REPRESENTATIVE MACKENZIE: Okay. Great. Thank you.

MAJORITY CHAIRMAN ROAE: All right. I guess I'm last here.

But I wanted to thank all the testifiers for testifying today, and all the testifiers and committee members who participated, you know, over all four of the hearings.

I would encourage all the committee members to continue to, you know, reach out to all the testifiers from all the hearings if you want clarification on anything.

You know, as we look ahead, as most people know, most major pieces of legislation that we deal with involve being amended along the way. Sometimes it means significant amendments, sometimes little tweaks. Sometimes a bill might be completely, you know -- basically start over and take that approach. It's been interesting.

And I agree with the Democratic Chair that this is very complex. I've said that a million times, but it's true.

And one thing that is kind of disappointing from all these hearings is it seems like, based on several people that have testified, is that even if we did do this, it doesn't seem like Three Mile Island is economically viable. And if we did this, it would close; if we don't do this, it would close. So maybe we have to take a bigger look and look at, you know, overall, kind of balance the pollution aspect of things with our economic, you know, points of view we have to consider to make sure that we maintain that cost-effective, you know, electricity mix that we have in Pennsylvania.

We want to be good for our economy. A lot of employers, they like the low price of Pennsylvania's electricity, and we have to make sure we don't mess that up. But we also have to balance that with making sure that we continue to have good air quality in Pennsylvania.

So, again, this is a very, very complex, very technical issue. And I'd like to thank everybody again.

And it's getting close to time here. It's 12:57, so I'm going to close this hearing out so members can get to the floor.

Thank you.

(The hearing concluded at 12:57 p.m.)

C E R T I F I C A T I O N

I hereby certify that the proceedings are contained fully and accurately in the notes taken by me on the within proceedings, and that this copy is a correct transcript of the same.

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Summer A. Miller, Court Reporter
Notary Public