May 6, 2019

Dear Chairman Vitale and Members of the Ohio House Energy and Natural Resources Committee,

Please find herein written testimony on Substitute House Bill 6 (HB 6). As businesses and employers in Ohio, we urge you to oppose legislation that would eliminate Ohio's current energy efficiency standard and thereby increase energy costs for Ohio businesses. We are supportive of energy efficiency and state policies that encourage energy efficiency and benefit the Ohio economy.

We write to collectively express our strong opposition to the legislative provisions in HB 6 that would eliminate Ohio's energy efficiency standard and weaken the energy saving programs. Weakening the energy efficiency policies and programs will lead to higher energy costs for businesses and consumers, and will create prolonged market and regulatory uncertainty for businesses operating in Ohio.

Energy efficiency standards help Ohio businesses cut energy costs, hedge against fuel price volatility, and compete in the national and global economies. They also help businesses plan ahead and make sound investment decisions into the future. Undercutting the current standards will reduce investment and growth in the state by removing the requirements for utilities to invest in the most competitive and least-cost energy resource – energy efficiency.

In 2009-2017, the energy efficiency standards have generated over $5 billion in utility bill savings for Ohio businesses and consumers. The energy efficiency standards continue to deliver by saving hundreds of millions of dollars each year on utility bills in Ohio. In 2017, the energy efficiency programs delivered $2.65 in benefits for every dollar invested in the programs. Ohio businesses, large and small, have reduced their energy costs by participating in the programs.

The Ohio energy efficiency standards have been an effective economic engine and job creator. Over 81,000 workers are employed in the energy efficiency sector in Ohio. The energy efficiency programs rely on a network of local distributors and contractors to deliver energy efficient products and services. These local jobs stay in Ohio and cannot be outsourced.

States with energy efficiency standards are better able to meet the needs of businesses and offer diverse energy options, thereby helping Ohio businesses to compete in today's global economy.

We recognize and value the significant economic opportunity presented by energy efficiency standards that support Ohio's economy. We urge you to vote against legislation that would weaken the energy efficiency standards that Ohio businesses value.

Thank you for your consideration of our testimony. We stand ready to work with you to advance energy policies that will benefit Ohio businesses and the Ohio economy.

Sincerely,

Ameresco, Schneider Electric, United Technologies, and the National Association of Energy Service Companies (NAESCO)

House Energy and Natural Resources Subcommittee on Energy Generation
Chair Dick Stein and Chair Michael O'Brien
Opponent Testimony on Substitute House Bill 6
Testimony of John Finnigan
Lead Counsel, Environmental Defense Fund
May 8, 2019

Chair Stein, Chair O'Brien, and Members of the Energy and Natural Resources Committee, my name is John Finnigan. I am Lead Counsel for Environmental Defense Fund (EDF). Thank you for the opportunity to speak to you today as an opponent to Ohio Substitute House Bill 6. EDF opposes the sub bill because it changes very little from the original bill, which I described two weeks ago as "a brazen boondoggle of a bailout for a bankrupt business."

Before I discuss what this bill is, I want to discuss what the bill is not. HB 6 is not an infrastructure bill, like the gas tax increase or the proposed Ohio water quality fund, as some have claimed. Those measures will raise revenue for new improvements to roads and water treatment plants. HB 6 raises revenue that will mostly go to old coal and nuclear plants for past spending.

Let's suppose that lawmakers would give the new gas tax revenues to local governments and tell them they don't actually need to spend the money on new roads and bridges, because their past spending on roads and bridges improved the quality of our transportation system. Ohio taxpayers wouldn't be very happy about that. But this is exactly how HB 6 will work. So don't be fooled – this is not an infrastructure bill that will lead to much new investment to improve air quality.

The stated purpose of this bill is to make our air cleaner. This is a noble purpose but the bill, as written, would utterly fail to accomplish this purpose.

According to the U.S. Energy Information Administration, Ohio has the sixth highest level in the country of carbon emissions from electricity plants. We should do something about this. The best approach would be to establish a cap on carbon emissions that would steadily decline over time, along with tradeable emission allowances. This is how the federal government designed the Clean Air Act of 1990. This law greatly succeeded in reducing the amount of sulfur dioxide in the air, which was causing acid rain. It only cost about 10% of what the experts had projected – because the market for the emission allowances succeeded in producing efficiencies that drove down the compliance costs. This approach would be the most efficient way to reduce carbon emissions. You have to ask yourself – do I want to vote for a proven system that relies on markets or do I want to vote for a system like HB 6 that relies on big government and bureaucratic control? At EDF, we advocate for using market-based solutions to resolve environmental problems. We would like to think that fiscally conservative lawmakers would also support market-based solutions.

It's right out of George Orwell to call HB 6 a "clean air resource" bill – because the bill provides subsidies for old coal and natural gas plants. The bill covers generating plants that make "a significant contribution toward minimizing emissions." This begs the question – compared to what? A new coal or natural gas plant would make a "significant contribution toward minimizing emissions" when compared to an old coal or natural gas plant, because the new plants would be more efficient. In other words, they would burn less fuel, and therefore have lower emissions, than the old plants. Here's another example. Regulators could refuse to certify wind and solar plants as clean air resources because these plants do not make a "significant contribution toward minimizing emissions" when compared to a nuclear plant.

Nuclear, wind and solar plants have zero carbon emissions, while coal and natural gas plants emit millions of tons of carbon emissions and other pollutants annually. The other states that have enacted laws to support nuclear plants have used the term "zero emissions" to make clear that the laws do not apply to coal and natural gas plants. This is a major flaw with the bill.

HB 6 would be the fifth time Ohioans have paid for these plants – (1) when the plants were built; (2) when the retail electricity market was restructured under SB 3 in 1999 and the utilities received billions of dollars in "stranded costs" payments; (3) when utilities were allowed to add the plants back into their electricity supply plans under SB 221 in 2008; (4) under PUCO-approved bailout rulings, which we are currently appealing to the Ohio Supreme Court; and (5) now once again under HB 6. When will it be time to say – enough is enough?

The gas tax increase you approved earlier this year was a sound measure that will benefit all the citizens of Ohio who pay the tax. We needed that bill and we will soon we'll all be driving on new roads and bridges funded by the tax. On the other hand, HB 6 creates a new tax on all customers of the four Ohio utilities, even if they buy their power from other suppliers. The main beneficiary of this tax will be FirstEnergy Solutions, which owns the nuclear plants. However, FirstEnergy Solutions is now in bankruptcy, so the bill really benefits a few Wall Street hedge funds that speculated on FirstEnergy Solutions. FirstEnergy Solutions filed a restructuring agreement in the bankruptcy case earlier this year and it lists the firms that will be getting the money out of the bankruptcy case.[1] Here are some of the names:

- Avenue Capital Management
- Cove Key Management
- Latigo Partners
- CV Credit Partners
- Serengeti Asset Management

[1] *Notice of the Debtors' Entry into a Restructuring Support Agreement and of the Record Date for Equity Elections under the Debtors' Plan of Reorganization* at p. 35, Case No. 18-50757 (Bankr. N.D. Ohio) (January 23, 2019), available at: https://cases.primeclerk.com/FES/Home-DocketInfo?DockRelatedSearchValue=1995

- VR Global Partners

So the folks who would pay for HB 6 all live right here in Ohio on Main Street but their money would go to benefit a few big hedge funds on Wall Street. You can almost hear a great sucking sound of our money goes "whoosh" out of our pockets here in Ohio straight to New York. Compare this to wind and solar developers, who want to bring new investment and jobs and local tax revenues and lower energy costs into Ohio to benefit Ohio citizens and Ohio local governments and Ohio school districts.

The other party that would really benefit from HB 6 is FirstEnergy Corp. In the FirstEnergy Solutions bankruptcy case, FirstEnergy Corp. is trying to settle its obligations to FirstEnergy Solutions and its creditors. FirstEnergy Corp. agreed to a settlement where it will pay about $1 billion in cash, notes and other consideration. In exchange for this payment, FirstEnergy Corp. asked for a full release that it would protect it against any future liability for cleaning up the coal and nuclear plant sites owned by FirstEnergy Solutions, in case FirstEnergy Solutions would go bankrupt a second time. This was highly unusual because the law says that any party that owns or operates a hazardous waste site must remain liable for cleanup costs, even if it transfers ownership of the site. FirstEnergy Corp. owned and operated the coal and nuclear plants before turning them over to FirstEnergy Solutions.

On April 4th, the bankruptcy judge rejected this ploy by FirstEnergy Corp. The judge ruled that these broad releases are illegal and that FirstEnergy Corp. must remain liable for cleaning up these sites if FirstEnergy Solutions would go bankrupt a second time. So FirstEnergy Corp. issued a news release on April 20th saying that it would stand behind its $1 billion bankruptcy settlement and would agree to remain liable for these cleanup costs if FirstEnergy Solutions goes bankrupt a second time.[2]

And this explains why FirstEnergy Corp. is pushing so hard to get HB 6 passed. The bill would provide about $300 million/year to prop up FirstEnergy Solutions. This would reduce the risk that FirstEnergy Solutions would go bankrupt a second time, and thus reduce the risk that FirstEnergy Corp. would be called upon to pay for cleaning up the coal and nuclear plant sites that it once owned. So if you approve HB 6, you will be giving FirstEnergy Corp. the financial protection that it couldn't get from the bankruptcy judge. We've all heard about the Green New Deal. If you vote for HB 6, you'll be voting to give FirstEnergy Corp. a Green New Deal to the tune of $300 million/year.

In spite of all this, EDF would consider withdrawing its objections to payments for nuclear power if this were part of a comprehensive program that would also support other forms of clean energy. When other states have provided support for nuclear plants, they did so as part of a comprehensive plan that strengthened their support for

[2] FirstEnergy Statement on Next Steps in FES Bankruptcy Filing (April 20, 2019), available at: https://www.firstenergycorp.com/content/fecorp/newsroom/news_articles/firstenergy-statement-on-next-steps-in-fes-bankruptcy-filing.html

wind and solar and energy efficiency. We did not object to these programs in Illinois and New York. There are four states which, like Ohio, have restructured their electricity markets, and have adopted these nuclear support programs since 2016 -

- Illinois – passed the Future Energy Jobs Act in 2016. This bill provides $235 million/year to Exelon for its nuclear plants, but also significantly increased the number of RECs procured annually for its Renewable Portfolio Standard (RPS) and provided hundreds of millions for energy efficiency and assistance for low-income consumers.

- Connecticut – in 2018, passed a bill that provides nuclear support of $330 million/year to Dominion for the Millstone nuclear plant, but also passed a bill increasing the RPS to 40% by 2030.

- New York – the Public Service Commission adopted a program in 2016 that will pay $600 million/year for twelve years to support four nuclear reactors, and also adopted an RPS that requires 50% of the state's energy to come from renewable resources.

- New Jersey – enacted a law in 2018 that provides $300 million/year to PSE&G and Exelon for their nuclear plants, but also increases the RPS to 50% by 2030 (the prior RPS target was 13%).

Ohio stands alone because HB 6 would support nuclear plants but would destroy the renewable portfolio and energy efficiency standards by making them voluntary. This we cannot support. When Governor DeWine ran for office, he stated that he would support an "all of the above" energy policy. HB 6 is a "none of the above" policy, except for nuclear.

Other states are increasing their RPS targets because they see the benefits from renewable energy. Today 29 states have RPS targets, and about half of these states have increased their RPS targets or increased a carve-out for a particular technology in recent years.[3]

Five states have passed laws that call for 100% renewable energy by 2050 or sooner – Hawaii, California, New Mexico, Nevada and Washington state. The following nine states are currently considering bills that would require 100% renewable energy – Illinois, Minnesota, New York, New Jersey, Virginia, Florida, Massachusetts, Maine and Maryland.

[3] G. Barbose, Lawrence Berkeley National Laboratory, *U.S. Renewable Portfolio Standards: 2018 Annual Status Report* (November 2018), available at: http://eta-publications.lbl.gov/sites/default/files/2018_annual_rps_summary_report.pdf

Some HB 6 supporters have said we don't need more renewable energy because then our electricity prices will get really high like in California. This argument has no merit. Here are some important facts about wind energy:[4]

- Wind turbines have become much more efficient in recent years by using longer blades. The typical capacity factor for wind plants built today is 42%, or about double the amount from twenty years ago.

- A wind turbine is made primarily from steel. Most of the towers and blades for wind turbines are built here in the U.S., because these components are so heavy and costly to transport.

- Ten years ago, the average cost of wind energy from a power purchase agreement was 7¢ per kWh. Today, the cost is about 2¢ per kWh and wind is the cheapest form of electricity.

- The states that are the largest users of wind energy are Iowa, Kansas, Oklahoma and South Dakota. They all get over 30% of their total energy from wind. The average retail price for electricity in these four states taken together is below the national average.

The cost of solar has also declined in recent years due to more efficient technology and the average cost is about 4¢ per kWh.[5] Some of the states with the highest amount of solar penetration include North Carolina, Utah, Arizona and Nevada, which all have retail prices for electricity below the national average.

Another benefit that renewable energy provides is that it is a source of revenue for Ohio's farmers and a source of tax revenue for local governments and school districts, especially rural areas that may be strapped for revenue. Ohio is one of the leading agricultural states in the country and this revenue can help stabilize our farmers' income.

Let's look at what AEP is doing with renewable energy. A couple of years ago, AEP announced the Wind Catcher project, where it planned to invest $4.5 billion to build a 2,000 MW wind farm in the western panhandle of Oklahoma. It had to cancel this project when it couldn't get one of the regulatory approvals it needed. In January, Southwestern Electric Power Company (SWEPCO), an AEP utility operating company, issued an RFP for 1.2 gigawatts of wind. SWEPCO serves customers in Texas,

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[4] Lawrence Berkeley National Lab, *Wind Technologies Market Report*, available at: https://emp.lbl.gov/wind-technologies-market-report/

[5] Lawrence Berkeley National Lab, *Utility-Scale Solar*, available at: https://emp.lbl.gov/utility-scale-solar

Arkansas and Louisiana. When this plan is completed, 24% of the SWEPCO's electricity will come from wind.

In February, AEP announced that it was buying Sempra Renewables for $1 billion. When it completes this deal and a wind farm under construction in Texas, AEP will own over 1,300 MW of wind, making it the seventh largest utility owner of competitive wind generation in the U.S.

Just last week, AEP issued an RFP to buy wind and solar in PJM. AEP said that it was primarily looking for new wind and solar in Ohio because it has made commitments to supply it to several large customers.

So look at the billions of dollars of investment that AEP and other companies want to make in renewable energy. They're just waiting to shower this new investment on Ohio. That investment will bring good-paying jobs, more tax revenue, lower electricity bills and cleaner air. Let's support this <u>new</u> investment, rather giving a handout to nuclear plants that were built 50 years ago and involve zero new investment.

AEP had a conference call with its investors two weeks ago, after releasing its earnings for the first quarter of 2019. During the call, one of the investors asked a question about AEP's views on HB 6. This was the original version of the bill, but of course, the substitute version is essentially the same. Here's what AEP said:

> Paul Patterson (representing investors):
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> Okay. Then with respect to the Ohio legislation, previously you guys, I think had concerns about AEP utility ratepayers paying for other companies' nuclear plants. How do you guys feel about HB 6 as it currently stands? I mean, I know you raised a couple of the issues in your prepared remarks. I was just wondering if you could give a little more color on that.
>
> Brian Tierney (an Executive VP at AEP and the CFO):
>
> Yes, so we think if there's a full package where all of Ohio customers can benefit, then it's a worthy effort. If it's just a bailout for one company or another, it's not as beneficial to all Ohio customers, so there needs to be a full package of things that get addressed, and energy efficiency, the renewable portfolio standard, ability of utilities to invest in renewables going forward are all important things that need to be in the bill, and if they're not, it's not as beneficial for ratepayers in the state.

Mr. Tierney makes a good point – why should lawmakers from other regions in Ohio support a bill where almost all of the benefits will support two nuclear plants that provide hundreds of millions in revenue to businesses and tax revenue to local governments and school districts only in FirstEnergy's service territory. Let's get a bill that supports renewable energy, which would allow all Ohio citizens and local governments and school districts to benefit – not just those in FirstEnergy's service territory.

Finally, any energy bill should fix the wind setback issue that was adopted in 2014. Ohio has one of the most restrictive wind setback laws in the country. This has stifled investment in new wind farms. A number of lawmakers have expressed support for fixing this on a bipartisan basis. But it's like Mark Twain said about the weather – "Everybody talks about the weather but no one does anything about it." Instead of rushing through HB 6 that would primarily benefit two old nuclear plants located in FirstEnergy's service territory, let's fix the wind setback rule and unlock billions in new investment that would benefit all Ohioans.

Ohio's wind farms provide tremendous benefits. For example, the Blue Creek Wind Farm in Van Wert County provides about $3 million/year in tax revenues to local governments and school districts and $2 million/year in lease payments to farmers.

The wind setback rule was adopted by stealth. Someone mysteriously buried it into the budget bill at the last minute in 2014. No one would sponsor it and no one wanted to vote on it as a stand-alone bill because they knew it would attract a lot of opposition.

Since that time, the setback rule has choked off new wind farm projects. When the setback rule was changed in 2014, developers had wind projects on the books that would have provided over $4 billion in economic benefits, including $2 billion in new direct capital investment, $660 million in tax revenues to local governments and schools and $440 million in payments to farmers for leasing their land. But these projects did not get built because the wind setback rule blocked these projects from going forward.

The conditions are good for wind development in Ohio. We live in a windy part of the country, especially in the northern part of the state. We have a lot of transmission lines that could accommodate wind farms. Neighboring states like Illinois, Michigan and Pennsylvania each have over 20 wind farms, but Ohio only has three – thanks to the wind setback rule. These other states are eating our lunch and we're losing out on billions in new investment.

Last year, HB 114 and SB 238 were introduced to fix the wind setback rule, but these bills were not passed. Let's get the job done now and unleash billions in <u>new</u> investment in Ohio wind farms instead of worrying about <u>old</u> investment in nuclear plants.

I began my comments by telling you what HB 6 is not – it is not an infrastructure bill. I will end my comments by telling you what this bill is. I agree with what AEP's Mr. Tierney said about the bill. This bill is nothing but a humungous handout for a few huge hedge funds and for FirstEnergy. The wind setback rule should be fixed and HB 6 should be nixed.

I appreciate your time and consideration today, I would be pleased to answer any questions.

House Energy & Natural Resources Committee
House Bill 6 - Opponent Testimony
Micah Derry – State Director
May 8, 2019

Chairman Vitale, Vice Chair Kick, Ranking Member Denson, and members of the committee, thank you for the opportunity to offer testimony today on House Bill 6. My name is Micah Derry, and I am the State Director of Americans for Prosperity – Ohio. Our organization is dedicated to breaking internal and external barriers that stand in the way of people realizing their full potential. Removing these barriers, in whatever forms they take, helps move our society toward one of mutual benefit, where people succeed by helping others improve their lives and transform their communities.

AFP-OH opposes HB 6. We appreciated the opportunity to voice our opposition on April 23 to the subcommittee and had originally intended to leave our testifying at that. But we had also been more optimistic that the testimony of such a broad coalition would have resulted in a more earnest attempt to change the bill.

We remain opposed to the sub-bill. This should not be a surprise. We have opposed similar legislation with similar aims in the past, although those bills were structured differently than this bill. The subcommittee and this full committee have received submissions of testimony from PhD economists, think tanks of varying philosophies, business interests, business owners, and stakeholders that stand to be impacted by Sub HB 6.

I will not seek to reiterate their points, but rather examine the public perception of HB 6 and the damage this bill will have on the credibility of the Ohio General Assembly, should the bill pass.

<u>Perception</u>

Dr. Ned Hill from Ohio State University put a fine point on the public perception of this bill. “If it looks like a duck, waddles like a duck, quacks like a duck, let’s just be honest and call it a duck.”

Recognizing that the sponsors of the HB 6 vehemently deny that it is a “bailout”, with all due respect, they are wrong. We can use language like, “incentives and economic development

packages" if that's what we feel like we need to do to make ourselves feel better, but in the plain-spoken language most Ohioans prefer to use, HB 6 is corporate welfare, it is cronyism on full display; in other words, a bailout.

There are obvious reasons that the average Ohioan would have this feeling. Whether the so-called "Clean Air Act" benefits other companies down the road or not, I have not heard a single person dispute who benefits now. The *Cleveland Plain Dealer* reported on April 16th that since 2017, First Energy and First Energy Solutions have invested $1.2M in campaign contributions and $2.7M on lobbying and public relations efforts. First Energy or its subsidiary stand to benefit to the tune of $150M in the first year alone should Sub HB 6 become law.

I want to be clear. I do not stand before this committee to make accusations. I am standing here today as a representative of a grassroots organization to explain why people across our state view this as a "bailout".

Damage

Passing House Bill 6 is radioactive for the perception the public already has of this legislative body.

Pew Research has tracked public trust in government from 1958 through 2019. Today we stand at an all-time low.

Only 17% of people trust the government to do what is right.

Only 3% trust the government to *always* do what is right.

Only 14% trust the government to *mostly* do what is right.

This isn't particularly surprising, considering the McClatchy-Marist poll in December of 2016 showed the same number of Americans, only 14%, believe that "everyone more or less plays by the same rules". Contrast this with the 83% of Americans who believe "there are different rules for the well-connected and people with money."

The exclamation mark is on this mentality comes from the Reuters/Ipsos National Election Day poll that found 73% agree that "the economy is rigged to advantage the rich and powerful."

Especially in light of the incredible amounts of money First Energy and First Energy Solutions have spent on campaign contributions and lobbying efforts, everyday working Ohioans are astounded to see them make a glowing return on their investment.

Their ROI, if HB 6 were passed, would be over 3,000%. Let that sink in for a second, and think about the average person, or a small business owner might think when they hear that information. Surely one thought that would cross their mind would be that it's a better deal than the government has ever offered them.

Passing this legislation, to take money out of the bank accounts of working Ohioans, only to put their cash in the hands of a company that has spent most of this millennium as a Fortune 200 company, will only serve to reinforce this degradation of public opinion and trust in the institution of government.

In closing, I am blessed with the great fortune of running the Ohio operations for an organization that appeals to activists by ignoring party lines and working toward the goal of a free and open society. Our activists come to us because they share our belief that free people are capable of extraordinary things.

As these people, your constituents, gather together to work with us on the issues impacting them, there is a shared concern among them in the rise of what is popularly being called socialism. I've learned a lot by listening to our folks discussing their hopes, dreams, and fears. Many of them have observed that the rise in popularity for socialism has come from a failure of our leaders to consistently present a better model of free enterprise.

Make no mistake, House Bill 6 of the 133rd General Assembly is an epitome of the policies that have led hundreds of thousands of students on university campuses across the United States to believe that capitalism is a fraud, a fake, and a failure. It is because they have been told, and observed, that such cronyism and corporate welfare is actually capitalism, and because they see the inherent unfairness of a system which, in the words of Bastiat, practices "legal plunder" to enrich the wealthy, but tells the middle class it is for their own good.

Though more clever in its disguise than past iterations, Sub House Bill 6 is, at its core, corporate welfare – a bailout. Because it is, I must call it as much, and that is why AFP – Ohio opposes this legislation.

Thank you to the chairman and members of the committee for allowing me to share my thoughts with you today. I'm happy to answer any questions you might have at this time.

Substitute House Bill 6
Opponent Testimony

Before the Energy and Natural Resources Committee
Representative Nino Vitale, Chair

Presented by

Terri Sexton
Environmental and Energy Manager
Navistar

May 8, 2019

Chairman Vitale, Ranking Member Denson, and members of the Energy and Natural Resources Committee, thank you for the opportunity to present opponent testimony today on Substitute House Bill 6.

My name is Terri Sexton. I am Environmental and Energy Manager at the Navistar Assembly Plant in Springfield. Navistar is a leading manufacturer of commercial trucks, buses, defense vehicles and engines. Our company is headquartered outside Chicago and have operations around the globe. The Springfield Assembly Plant dates to 1967, though historically the company's presence in Springfield dates back more than 100 years. We are known to people of our community by our legacy names, International and International Harvester. The plant directly employs 2000 men and women. Our associates are unionized.

Navistar's major truck, bus and engine manufacturing facilities are ISO 14001 certified, and employees constantly find new ways to reduce energy use, trim greenhouse gas emissions, lower the production of waste and increase recycling of excess materials. Our manufacturing facilities are committed to reducing their environmental impact and challenged specifically to lower their electric consumption load by 4 percent annually. Our energy conservation efforts continue to focus on low- or no-capital investment opportunities and eliminating waste.

Throughout our supply chain, we promote compliance with safety, environmental and social standards.

I am testifying today on behalf of my company but also on behalf of The Ohio Manufacturers' Association (OMA). Our company is an active member of the OMA. The OMA was created in 1910 to advocate for Ohio manufacturers; today it has approximately 1,400 members – large, small and in-between. Its mission is to protect and grow Ohio manufacturing.

Access to reliable, affordable energy is critical to all manufacturers. For that reason, companies like Navistar are always seeking cost-effective energy solutions. We are constantly looking for ways to reduce our electricity costs because money we save by reducing our energy spend is money we can reinvest in our business, in our employees, in our facilities and in product innovations—as well as in the communities in which we live and maintain facilities.

Also critical to manufacturers are energy policies that support energy markets, free from market manipulation, that allow consumers to access the cost and innovation benefits of competition.

We have reviewed Substitute House Bill 6 and find the bill still creates multiple new costs, and new forms of costs, for manufacturers. The bill, as written, will cost manufacturers more money in the form of new riders above what we are paying today. The OMA is skeptical of the bill's intended environmental justification and we believe the bill will foster worse, not better, emissions reductions for Ohio. Worst of all, the bill distorts the function of the marketplace which is delivering cost savings and energy innovation to Ohio energy consumers.

The OMA finds this bill, as written, to be a mandated, customer-financed bailout of uneconomical power plants in the form of 'Clean Air Credits' and direct subsidies. We note that this bill appears to allow fossil-fuel plants to apply for unspecified amounts of funds to subsidize investment in the plants. There is nothing in the bill to prevent funds from being used to subsidize uneconomical coal plants. These initiatives appear in direct conflict with the State's environmental programs and goals, financially rewarding older and dirtier technologies while manufacturers constantly face 'Best Available Technology" improvements and added costs to reduce environmental impacts.

These non-bypassable charges on customers are unwarranted. While manufacturers support nuclear power as part of an 'all-of-the-above' energy portfolio, we are strongly opposed to subsidizing certain generation plants and saddling Ohio consumers with hundreds of millions of dollars of unjustified charges annually for an unspecified period into the future.

We are keenly interested in public policies that will drive lowest-cost energy resources and solutions – rather than policies that will impose hundreds of millions of dollars of unwarranted, anti-competitive, above-market charges on our businesses. If enacted as introduced, Substitute House Bill 6 would cost manufacturers and other customers throughout the state an estimated $172 million in 2020 and $300 million annually thereafter (until the law is repealed) just for the Clean Air Fees.

It's impossible from the current bill language to know exactly which generation sources will qualify to receive the subsidies, but based on the proponents' testimony, we suspect most will go to subsidize two Ohio nuclear power plants owned and operated by FirstEnergy Solutions and FirstEnergy's subsidiary, FENOC. It appears that large scale renewable energy projects may also receive subsidies. Additionally, fossil-fuel plants could receive a portion of the "accumulated" funds identified in the bill to assist in "capital formation" for investment in the plants.

The cost of the new Ohio Clean Air Program alone adds up to almost $3 billion in new customer charges in the first ten years. This is a new above-market charge that all customers of Ohio's distribution utilities would be required to pay with limited exceptions.

The lack of transparency, coupled with the cost-driving provisions of the bill, leads me to fear that my company will experience increased, not reduced, costs.

Additionally, under the current language, it is clear that energy-efficiency programs, and their associated costs, will be modified and recreated under two different funding mechanisms.

The bill creates cost risks in other ways. First, it allows and encourages Clean Air Resources – including nuclear plants - to obtain a Purchase Power Agreement (PPA), which could pass additional unspecified charges to all ratepayers, with no caps. This is a blank check. Second, Substitute House Bill 6 could likely trigger a "bifurcation" of PJM's capacity auction, which would increase electricity capacity costs to all Ohioans.

Furthermore, there are multiple, additional concerns that manufacturers have beyond the Clean Air Fee assessment, which include the following:

1. Customers will continue to pay shared savings (i.e., profit) and lost-distribution revenue associated with existing energy efficiency programs to the utilities through a revenue decoupling mechanism for an undefined period, even after the energy efficiency mandates and existing programs are terminated.

2. Customers will be required to pay for costs associated with winding down or discontinuing the existing energy efficiency programs through December 31, 2021. These are new, unknown costs and could include contract termination payments and employee severance pay.

3. Substitute House Bill 6 allows utilities to run energy efficiency programs approved by the PUCO and to receive recovery of costs and incentives for those programs beginning January 1, 2021, while customers are still paying for existing energy efficiency programs. Therefore, in the year 2021, customers could be paying for existing programs, discontinuation costs, and new PUCO-approved programs, which would be in addition to the energy efficiency costs (shared savings incentive revenue and lost distribution revenue) that the customers will pay through the revenue decoupling mechanism.

4. It is unclear whether opted-out customers will now have to pay through the revenue decoupling mechanism shared savings and lost-distribution revenue associated with the energy efficiency programs from which they opted out.

5. Customers will be required to pay for unknown PPA Program costs for customer-sited projects and utilities' projects.

So, you can see there are a lot of moving parts in Substitute House Bill 6. How will all those pieces impact my company? Navistar will see increased electricity costs because of Substitute

House Bill 6. The net direct cost of the Clean Air Program and increased capacity costs, minus the Renewable Portfolio Standard costs, is about $52,000 per year.

As I said earlier in my remarks, my company is working to make our products and our manufacturing processes more efficient while reducing waste and emissions. Market forces help to achieve those results in manufacturing.

Market forces are also at work in power generation. It would be our suggestion that this committee invite comment from Ohio EPA to learn more about the trends in Ohio's airshed. Ohio EPA recently highlighted in its comments to U.S. EPA that Ohio's carbon emissions have dropped by 38% since 2005 due to market forces.

While there are no carbon emissions limitations in effect in the U.S. today, data show that market pressures, from investors and customers, are encouraging cleaner forms of energy for power generation. This would dispute much of the proponents' justification for the bill. Noticeably, Substitute House Bill 6 exempts the carbon-emitting "Reduced Emissions Resources" from having to report its forecast of carbon emissions when applying for Clean Air Program funds.

A final provision I want to address is the bill's creation of a PPA Program. This program would create additional costs for customers that will also distort the market, potentially driving wholesale and retail costs higher in future years. While sponsors have called this a customer benefit to spur customer-sited projects, we find this provision provides no new benefits for customers, who already have ready access to three-year PPAs in the competitive market and who can already request a reasonable arrangement. I should note that the bill does not apply to customer-sited projects where there is no PPA or the PPA is less than three years in duration.

I understand that this program may allow a FirstEnergy distribution utility to enter into a PPA for the output of the nuclear plants that is committed to customers, which would shift subsidies for the nuclear plants to the PPA Program in that utility's service territory. In such a situation, the net increase of the PPA and the capacity costs could be over $250,000 per year to our company. The PPA Program could create a whole new set of riders and potential costs for utility-owned or operated renewable energy. Importantly, this language fundamentally creates a mechanism for distribution utilities to re-enter the generation market.

In sum, this bill does not protect customers, but rather it protects select generators and utilities.

For years, the OMA has worked to mitigate the impact of unwarranted above-market charges that put upward pressure on energy costs. According to the Office of the Consumers' Counsel, Ohio utilities have collected more than *$15 billion* in PUCO-approved, above-market charges from utility customers since 2000. This bill would guarantee more unjustified consumer-financed subsidies, create upward pressure on energy costs, and set Ohio back on its heels as a place for energy innovation and capital-attraction.

In closing, The Ohio Manufacturers' Association strongly believes in fair, market-driven competition. The subsidized charges imposed on consumers and manufacturers from Substitute House Bill 6 are simply not consistent with competitive markets and are not good for Ohio – in

either the short term or the long term. For these reasons, the OMA firmly opposes Substitute House Bill 6. It is anticompetitive and anti-consumer, and not good for our state.

I am pleased also to be joined by Kimberly Bojko of the Carpenter Lipps & Leland law firm. Kim serves as the OMA's chief energy attorney, representing industry positions before the state and federal regulatory commissions. She is able to help me respond to your questions.

Chairman, members of the committee, this concludes my prepared remarks.

THE OHIO STATE UNIVERSITY
JOHN GLENN COLLEGE OF PUBLIC AFFAIRS
OHIO MANUFACTURING INSTITUTE

The Attempted Bailout of FirstEnergy's Uncompetitive Nuclear Power Plants: House Bill 6 is a threat to Ohio's economic future

House Bill 6
Opponent Testimony

Before the
Ohio House Energy and Natural Resource Committee
Representative Nino Viitale, Chair
Representative Sedrick Denson, Ranking Member

Presented by
Edward W. [Ned] Hill, Ph.D.
Professor of Economic Development
John Glenn College of Public Affairs
Ohio Manufacturing Institute
The Ohio State University

May 8, 2019

The findings, conclusions, and recommendations expressed in this testimony are mine alone and do not represent the views of The Ohio State University, the John Glenn College of Public Affairs, or the Ohio Manufacturing Institute

Ohio House Energy and Natural Resource Committee

Chairman Vitale, Ranking Member Denson, and the members of the Energy and Natural Resource Committee, thank you for providing me with an opportunity to submit testimony in opposition to House Bill 6. My name is Edward [Ned] Hill. I am Professor of Economic Development at The Ohio State University's John Glenn College of Public Affairs and a member of the university's Ohio Manufacturing Institute. Today's testimony is mine alone and does not represent the views of The Ohio State University, the John Glenn College of Public Affairs, or the Ohio Manufacturing Institute.

I am an economist and have worked on economic development policies in general, and on issues that affect Ohio's manufacturing sector in particular, for nearly thirty-four years. I am interested in the performance electricity markets in Ohio and have testified on my findings before the Public Utilities Commission of Ohio (PUCO) and the Ohio Legislature. I have also participated in research relating to the development of Ohio's natural gas resources since 2011.

I have appended an opinion column on House Bill 6 that *Crain's Cleveland Business* published on Monday, May 6. The column was submitted before the substitute bill was available.

I apologize for not being able to testify in person. Family responsibilities and a previous commitment made it impossible for me to testify in person.

As an economist who works on economic development issues, I view the attempts of Ohio's Investor Owned Utilities (IOUs) over the past five years to:

- Bailout failing power plants,
- Re-monopolize the electric generation industry through a mix of regulation and legislation,
- Re-balkanize and degrade an efficient and reliable regional generation market managed by PJM Interconnection,
- Mandate above market rate payments for electricity through anti-competitive purchase price agreements (PPAs), and
- Implement non-bypassable riders that are not connected with the generation, transmission or distribution of electricity service delivery

as being fundamentally detrimental to the state's economic development.

These attempted bailouts, above-market PPAs, and riders all come after transition payments were made to the state's IOUs over the past decade and a half with the legislature's intent that they be used to mark down stranded assets to reflect their market value and adjust to competition in the electricity generation market. The Legislature also advised the IOUs to divest themselves of their generating capabilities. Unfortunately, only Duke Power followed the legislature's advice. The others, particularly FirstEnergy (FE), made a business decision that turned out badly. Today, FE is back before the Legislature seeking a multi-billion dollar bailout without an end date to cover its bad business bet.

Ohio's Consumer Counsel estimates that Ohio's IOUs have collected more than $14 billion in stranded asset payments and non-bypassable riders since 2000. House Bill 6 will add another $3 billion over the next ten years, and the bailout of the nuclear plants has no end date or sunset provision. House Bill 6 provides a bailout that does not.

My testimony is in two parts. First, I review the regulatory and legislative scrum that has taken place since 2014. Second, I discuss the most problematic economic components of H.B. 6. However, the most important problems with the drafted bill should be mentioned up front. The first is its opaque writing. The intent of the bill and its mechanics are needlessly obscured. I am sure that even the drafting party does not fully understand how this beast works. The second is its reliance on data from FirstEnergy without independent verification.

The past five years

If it looks like a duck, waddles like a duck, and quacks like a duck, let's be honest and just call it a duck. And, we should also acknowledge, but not celebrate, the fact that we are close to starting our sixth year of duck hunting. August 2019 marks the sixth anniversary of a determined campaign by Ohio's IOUs to subsidize their (or their affiliates') loss-making power plants.

The bulk of House Bill 6 constitutes the third attempt by FE to bail out its uncompetitive nuclear power plants, with similar levels of non-bypassable charges being demanded in each effort. In my assessment, these non-bypassable charges are *de facto* taxes because the power of the state is required to extract payments from electricity users.

Initially, the IOUs tried to use the Electric Security Plans (ESPs) required by the Public Utilities Commission of Ohio (PUCO) as vehicles to gain approval for uncompetitive, non-bypassable power purchase agreements (PPAs) from their loss-making power plants. FE submitted the initial version of its plan to the PUCO in August 2014. The PUCO did not approve the PPA, but the ESPs that were approved contained a slew of non-bypassable riders that funneled above-market payments to the state's IOUs, turning the Electric Security Plans into Egregious Subsidy Proposals.

Next in line was FE's invention of a synthetic form of a PPA to subsidize its two loss-making Ohio nuclear plants along with had what appeared to be a backdoor subsidy from Ohio customers to its Beaver Valley nuclear facility located along the Ohio River in Shippingport Pennsylvania. Unsatisfied by the negative reception of this proposal at the Public Utilities Commission of Ohio and the Federal Energy Regulatory Commission (FERC), FirstEnergy shifted its attention to the legislature.

FE petitioned for approval of synthetic Zero-emission nuclear credits, or ZECs, tied to non-bypassable power purchase agreements to subsidize its nuclear plants in House Bill 178 that was before the Legislature in 2016. FE sought a subsidy of $300 million a year in that bill. And now we have House Bill 6, pegged at $300 million a year—the same number as found in the 2016 legislation.

What H.B. 6 and its previous incarnations gets fundamentally wrong is the core public policy goals of competitive wholesale energy markets, provide reliable power at

the lowest cost to consumers. As former Federal Energy Regulatory Commissioner Tony Clark wrote in a July 2017 white paper: “For many, a ‘freer market’ was never the end goal. The market was a tool. Affordable power was the goal .... but many state public policy makers no longer see that as the only goal ... (Electricity generating markets) were never designed for job creation, tax preservation, politically popular generation, or anything other than reliable, affordable electricity.”[1]

The electricity generation and capacity markets are working in Ohio and benefit consumers and employers. There is no economic rationale for introducing subsidies into the electricity generating markets; they amount to nothing more than corporate welfare.

Is the Electricity Market Working? A Four-part Test

There is a straight forward four-part test that determines if electricity markets are working for consumers and the industry:

First: *Are prices lower than they would have been without competitive electricity markets?* The answer for Ohio is definitive and positive. Savings occur in two ways. The cost of Standard Service Offerings from the IOUs declined when competition for purchasing generated electricity became effective, and the spread between competitive pricing and SSO pricing has narrowed over time. Narrowing differences between prices offered by established electricity providers through their SSOs and from competitive new market entrants are the expected result in operating free markets. Electricity transmission and distribution remain natural monopolies for now. Distribution is regulated by the PUCO, while transmission is jointly regulated by the PUCO, PJM Interconnection, and FERC.

The second source of savings from competition in the market for purchasing electricity generation occurs when commercial and industrial customers shop for power. In 2016 a research team that I was a part of estimated that nearly $3 billion a year in savings resulted from the entrance of new competitors.[2]

Savings from competitive generation markets have been clawed back to some extent through the expansion of non-bypassable riders by the PUCO. These riders are costs paid for by most electricity users and are not associated with charges for energy generation, capacity reserves, transmission, distribution, or losses — most of the riders are used for their named purposes. However, an exception exists in a grid modernization rider which allows FE to collect $168 million a year from 2017 to 2019. The company can apply to renew it for another two years. These funds appear to be fungible; they do not have to be spent on their named use, such as modernizing FE's

[1] Clark, Tony. *Regulation and Markets: Ideas for Solving the Identity Crisis*. Wilkinson, Baker, Knauer. July 2017. https://www.wbklaw.com

[2] Thomas, Andrew, et al. *Electricity Customer Choice in Ohio: How competition has outperformed traditional monopoly regulation*. Northeast Ohio Public Energy Council, November 2016.

transmission or distribution grids. The corporation appears to be able to use the funds as it wishes—including making good on losses from generating subsidiaries.[3]

Dormady et al. state that the riders paid for by residential customers may have fully offset their savings.[4] Thomas et al. (I was a member of this research team) also noted the rise in riders but did not apply the cost of the riders against the savings in electricity generating charges that were paid for by the various classes of customers. What is the impact of these riders on aggregate electricity spending in Ohio?

Competitive electric generation markets were in effect in most of Ohio in 2016. At that time non-bypassable riders constituted 14 percent of total electricity spending; generation costs were 48 percent of the aggregate bill. In 2018 generation costs are 41 percent of aggregate payments, and non-bypassable riders were 21 percent. There was a 7 percent swap between the two cost categories.

The riders are a competitive problem for Ohio's economic development, especially when firms that recruited to invest in the state asked for "reasonable rates" or "reasonable arrangements" and get riders waived by the PUCO. These costs do not disappear, however. The IOUs get paid. The portion of a rider that is forgiven under a reasonable arrangement is pooled and shifted onto other non-abated customers to pay.

Second: *Is investment in new generating capacity taking place in PJM Interconnection's region and is investment taking place in Ohio?* The answer to this question is also, yes. Approximately $11 billion in new power plant investments in Ohio are operating, approved for operation, or in the approval process. The combined generating capacity is 11.1 MW.[5]

Testimony before this Committee's Subcommittee on Energy Generation on April 24th indicates that the ground is beginning to shift among investors who are interested in building and operating natural gas power plants in Ohio. Some investors in approved projects that have not yet broken ground are heading for the sidelines.[6] They want to know if, and how, Ohio is changing from a competitive generating market to a re-regulated monopoly generating market. House Bill 6 has not yet received a vote and it is already hurting the economy.

Third: *Have uncompetitive generating plants closed? Yes*. Between 2010 and 2022 48 coal-fired power boilers located at 16 separate power stations are, or will be

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[3] Kowalski, Kathiann M. *FirstEnergy won't say what it's done with Ohio grid modernization money*. Midwest Energy News. https://energynews.us/2018/07/30/midwest/firstenergy-wont-say-what-its-done-with-ohio-grid-modernization-money/

[4] Dormady, Noah, et al., *Why Ohio's Retail Deregulation Has Been Bad for Households and Why Re-regulation Would Be Even Worse*. Policy Brief, John Glenn College of Public Affairs, 2018a. Dormady, Noah, et al., "Do Markets Make Good Commissioners? A Quasi-Experimental Analysis of Retail Electric Restructuring in Ohio," *Journal of Public Policy*. Published online July 3, 2018b.

[5] Ohio Independent Power Producers. Testimony before the Ohio House Energy and Natural Resource Committee, Subcommittee on Energy Generation, March 19, 2018.

[6] See the testimony of Mayor Arno Hill of Lordstown Ohio at https://ohiochannel.org/video/ohio-house-energy-and-natural-resources-subcommittee-on-energy-generation-4-24-2019-part-2 and Oregon Ohio's City Manager Michael J. Beasley at https://ohiochannel.org/video/ohio-house-energy-and-natural-resources-subcommittee-on-energy-generation-4-24-2019-part-3.

retired, with 14MW of power generation capacity. These power stations are located throughout the state, with most located along the Ohio River.[7]

The sites these former power stations occupy have the best development potential in Southeast Ohio. Connections to transmission grids exist at these sites. Many abut the river. They are perfect locations for natural gas-fired combined cycle power plants and for operations that need water, water transportation, and power. The irony is that one critical element of infrastructure is missing, an industrial scale natural gas pipeline that extends south along the Ohio River past Portsmouth to Adams County and possibly snaking its way toward Cincinnati. The legislature is fiddling away at propping up failed nuclear power plants in northern Ohio as Appalachia declines. We should learn from what transpired in Oregon Ohio when an industrial natural gas pipeline reached its borders.[8] We can also learn by examining the new investment occurring on Ashtabula's docks thanks to an industrial pipeline extension.

Fourth: *Has the reliability of the electric grid improved with the onset of competition?* The answer to this question is also positive. The power reserve standard for summertime peak usage under the previous state regulatory regime was between 12 and 16 percent. From 2008 to 2010, before competition in purchasing electricity was fully effective in Ohio, the reserve margin for PJM Interconnection was between 16.6 percent and 18.0 percent. PJM's reserve margin for 2019 is 27.5 percent. PJM estimates that reserves will peak in 2021 at 28 percent. The reserves will decline a bit, yet still stay ten percentage points above the old regulatory rule-of-thumb, to a still-robust 26 percent in 2023.[9]

Reliability has increased with effective regional transmission networks and competitive capacity markets that combine power generation capacity over a 13-state region. When weather events shift power demand, or outages dislocate power supplies, reserve power can be dispatch throughout PJM Interconnection's grid. Reliability is now more robust than when electricity generation capacity was balkanized. A large regionally interconnected transmission grid is electricity's version of the Law of Large Numbers.

Some in the legislature listen to industry lobbyists who claim that energy insecurity is increasing in the state of Ohio because of the number of shuttered coal-fired power plants and the prospect of two northern Ohio nuclear generating plants closing. Statements circulate that Ohioans are at the mercy of an uncaring and incompetent PJM Interconnection. All of this is self-serving foolishness.

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[7] The data were collected from: *Impact of Coal Plant Retirements on the U.S. Power Markets: PJM Interconnect Case Study*, Appendix A, Energy Ventures Analysis, July 2018; Seth Feaster, Record Drop in U.S. Coal-Fired Capacity Likely in 2018. IEEFA October 2018. http://ieefa.org/wp-content/uploads/2018/10/Record-Drop-in-U.S.-Coal-Fired-Capacity-in-2018_October2018.pdf; List of Power Stations in Ohio, Wikipedia; Individual pages maintained by Sourcewatch, example: https://www.sourcewatch.org/index.php/Eastlake_Power_Plant

[8] Testimony of Oregon Ohio's City Manager Michael J. Beasley before the Subcommittee on Energy Generation at https://ohiochannel.org/video/ohio-house-energy-and-natural-resources-subcommittee-on-energy-generation-4-24-2019-part-3.

[9] PJM Interconnect, Reserve Margin Graph, 2019. https://www.pjm.com/~/media/planning/res-adeq/20190409-forecasted-reserve-margin-graph.ashx

Electrons do not come in state colors, and the location of a power plant on one side of the Ohio River or the other makes no difference to the grid. Electrons generated in Ohio, Pennsylvania, West Virginia, Kentucky, or Indiana all work the same way.

Lobbyists are peddling another fable that is associated with their false assertions on system reliability—and that is supply vulnerability. Members of the legislature are being told that the reliability of electricity in Ohio is at risk because of the power that is imported. We need to be self-sufficient. Again, hooey. Ohio has been a net importer of electricity every year but one since 2001, while being the 8th largest producer of electricity. We just happen to be a larger consumer because of the structure of our economy. Most of the foreign-made electricity comes from the Ohio River Valley. In a transition from nuclear power our out-of-state imports will increase. And as time passes investment in new gas-fired power plants and alternative sources of power and conservation should also increase. That is, as long as Ohio preserves a competitive market for electricity consumption.

Has regulatory capture occurred over the past five years? It has. Non-bypassable costs in the transmission and distribution portions of the business have grown faster among the IOUs that own generating capacity than for the utility that does not. We all can observe the results of a natural experiment that occurred when Duke Energy shed its electricity generation capacity while AEP and FirstEnergy did not. We found out how an IOU with a fleet of generating plants behaves in the PUCO and Legislature compared to one that sold off its generating fleet.[10] The one without generating capacity has fewer and less costly non-bypassable riders in its ESP.

Core Problems with House Bill 6

I have already referred to a number of the problems in House Bill 6. They are so fundamental and numerous that I do not see how the bill can be fixed or how an altered bill can be useful economic development policy. The reason is that the assumptions made in this bill about how markets work are nonsense.

House Bill 6 is reacting to the competitive failure of nuclear power as a near term political issue instead of the long-term economic issue. If the problem were merely political, then a deal could be cut, and we could end this six-year duck hunt.

Unfortunately, in the long term, the challenge presented by the two upside-down nuclear power plants in Ohio is fundamentally an economic problem.

The members of the legislature should understand that markets will beat politics over time because investment moves to avoid higher prices and seek higher returns. Investment either does not take place or it slows down when the state government denies investors opportunities to compete against existing firms. In some sense, markets move like water in search of its own level. If we constrain competition, as is proposed by H.B. 6 investment will flow elsewhere, using Ohio-drilled natural gas.

What the drafters of House Bill 6 got wrong is their understanding of how competitive markets work. If the members of this Committee, and the other members of the House of Representatives, do not take the operation of competitive markets

[10] Thomas, *et al*., *op. cit*.

seriously for the sake of political expediency, we are going to make mistakes. Electricity users in Ohio will end up with higher prices and less reliable power.

Increases in the cost of power will be higher than the bailout payments mandated in House Bill 6 because of the way the pool of power consumed will be constructed. (This is explained after the short microeconomics lesson that immediately follows.) Ohio will also see an increase in special-interest petitions by sophisticated and connected employers for "reasonable rates." Electricity rates will decline to some negotiated level for politically connected or recruited businesses through an economic development attraction and retention process run by the PUCO. The negotiated rates will be confidential business secrets, and the negotiated savings will be passed on to other commercial and residential customers to pay.

It is inescapable to conclude that House Bill 6 is an attempt to raise electricity rates in the state of Ohio. *And, as we wrestle over potential rate increases, our competitors in the multi-state region served by the Tennessee Valley Authority to our south is taking action to lower their electricity rates*.[11] TVA serves southern Kentucky and a connecting piece of southwestern Virginia. Residents of most of Tennessee, as well as those who live in adjoining western North Carolina, are TVA's customers. Sophisticated manufacturing employers in northern Mississippi benefit from TVA's rates, as do those in northern Alabama's Muscle Shoals and Huntsville regions. Chattanooga and Atlanta's northern suburbs are also customers of TVA. In other words, a good portion of Ohio's day-to-day economic competition purchases power from TVA. *Ohio is heading in the wrong direction.*

House Bill 6, if enacted, will hurt Ohio's economic development by increasing electricity costs and diminish the reliability of the state's electric grid. The bill subsidizes cost inefficient nuclear power plants and paves the way to pre-monopolize alternative energy production in the state of Ohio. House Bill 6 will also discourage investment in efficient natural gas-fired combined cycle power plants. House Bill 6 ensures that Ohio's abundant and clean sources of natural gas will be drilled, put into pipes, shipped out-of-state, and the value that could have been added in Ohio will be added elsewhere. That prospect is an economic development nightmare and a loss for employment opportunity in Ohio's shale country.

How do competitive markets work?

Competitive markets work by having the lowest cost products enter a market first. More expensive sources of the very same product enter markets after the more efficient sources of supply are exhausted. That is the reason why the standard supply curve taught in introductory economics courses climbs the vertical price axis as the supply of the product increases. It also explains why economists state that in perfect markets profits are zero. However, the only producers who truly make no profit are the last ones to have their products purchased because their marginal cost of production equals the revenue earned from the last sale that is made. All other suppliers who have production costs that are lower than marginal revenue make money. There are also some

[11] Gardner, Timothy, "U.S.-owned utility to close two coal plants, in blow to Trump," *Reuters*, February 14, 2019 and James Brugger, "TVA Votes to Close 2 Coal Plants, Despite Political Pressure from Trump and Kentucky GOP," *Inside Climate News*, February 14, 2019.

unfortunate companies that cannot sell their products at all because they are so inefficient, that it does not make sense to turn the lights on.

Supply enters the market until the marginal cost (the price at which producers are willing to sell the last units that enter the market) equals the consumer's willingness to pay. The amount that is the lowest that a consumer is willing to pay and still take the product home is referred to as marginal revenue (the revenue created by the last unit sold). And, of course, once the lowest price is known, rational consumers are unwilling to pay a higher price for the same thing. Markets clear when marginal cost equals marginal revenue; this is what "supply equals demand at the equilibrium price" means. Those with production costs that are too high do not sell their products and are expected to exit the market either voluntarily or by bankruptcy.

There are two exceptions. Suppliers with very high fixed costs—costs that stay the same when production is either underway or stopped—will sell their product as long as the variable cost of production, the marginal cost, pays for all of the materials used in the production process, and there is a something left over to pay down fixed, or non-operating, costs. This systematic production decision making is what occurs in the electricity market. Fixed costs are high, especially for nuclear and coal-fired production. However, companies can only survive for a short time using this strategy because their losses will keep piling up and they will eventually run out of cash.

The second exception to the operations of competitive markets as I have described them is if the product is differentiated in some meaningful way. In the electricity market, an electron is an electron no matter how it is produced—electricity is an undifferentiated commodity. Well, there is one disruptive exception. Electrons that are made using solar, wind, or water power are considered differently by a growing number of consumers because CO^2 is not created as a harmful by-product, what economist term a negative externality. The question is how much of a premium some customers are willing to pay so that they avoid consuming non-green energy. Green energy is the only electron that has a color.

How does basic microeconomic theory apply to House Bill 6?

Microeconomics makes a difference in anticipating the outcomes from House Bill 6. The bill gets market mechanisms entirely backward; not once, but twice. The bill's drafters are not even allowed to ride along on a grading curve and earn a gentle C. Rather than having electricity supplied to users based on lowest-cost energy being the first units consumed the bill mandates that the state's consumers purchase and consume the most expensive power first. There are two places where this occurs.

The first place is at the heart of the bill when taxes, called non-bypassable riders, are enacted by the PUCO under the direction of the legislature to establish clean air credits. As mentioned earlier, the credits secure the nuclear plants and keep them operating. The second step in the dance takes place when the long-term mandated Power Purchase Agreements are executed between an IOU and its generator. The PPAs ensure that the power from the nuclear plants enters the market and that the purchase price provides a profit for the operating company. These two actions guarantee that the most expensive energy source comes into the power market first and stays in the mix of power sources. The outcomes are:

- Consumers pay for the clean air credits,
- Consumers pay for more expensive power,
- The PPAs will have a 10 to 20-year life,
- The most inefficient producers never leave the market because of “clean air credits,” which are the revenue the bailout provides, and
- New investment in lower cost, disruptive, power generation, is deterred

The lack of exit cannot be denied because this is the entire purpose of the bill. How competitive do you think that the price of power will be coming from the nuclear plants with no competitive pressure to keep operating costs in check? The support for an inefficient producer that is either uninterested in changing its operations, or cannot change them, cannot be denied either because House Bill 6 does not have a realistic end date to the subsidy payments. Not even inflation can erode the real value of the credit over time. The $9.25 per MW clean air credit will automatically increase over time because it is linked to an inflation index.

While the inflation adjustment will protect the value of the credit over its uncertain lifetime, it also invalidates a statement that was made consistently and emphatically by subcommittee members during the hearing previous to my testimony. Under House Bill 6 the cost of the clean air credits to residential customers is supposed to be locked in at $2.50 per month, commercial customers will pay $200 a month, industrial customers $250 a month, and customers that use more than 45 KWH in a single location will pay $2,500 a month. However, these payments are not adjusted for inflation while the production credit will be changed. Who pays the deficit that will occur when the cost of the program starts to exceed the revenue that comes in through the non-bypassable charge? The funding mechanism does not work, and the promises made will not be kept.

Why do I refer to House Bill 6 as a bailout for FirstEnergy and FirstEnergy Solutions?

Using the taxing power of the state to prop up a failed company and thwart market forces is what makes House Bill 6 a bailout for FirstEnergy and FirstEnergy Solutions. This fact answers any question as to why the payments in House Bill 6 are a bailout and not a subsidy.

Comparisons drawn between the bailout of the domestic automotive industry during the Great Recession and the support for Ohio’s failed nuclear plants throughout the hearing are also wrong. Before the bailout of GM and Chrysler was executed both companies were bankrupt and existing stockholders lost their ownership interest in the companies. Ford took a different route by not taking federal money. Ford protected its shareholders and pledged all of its assets including the blue oval as collateral for its financing.

Second, the loss of GM and Chrysler would have had an enormous negative economic impact regionally and nationally as its supply chain fell apart. It is likely that the economic decline would have been more severe than it was, and the recovery would have been slower in getting started. This is not a threat posed by the prospective closure of the two nuclear power plants.

Third, the support provided to GM and Chrysler was transitional. The federal government held stock in the New GM and Chrysler and took a subordinated ownership position in the companies. The Treasury sold its shares as the new automakers stabilized, making a little money in the process. The federal support was transitional because the government wanted to end its ownership as soon as possible.

Under House Bill 6 the subsidy is permanent, the companies and their stockholders and investors are kept whole, and the subsidy is never paid back. The subsidy is a permanent bailout.

House Bill 6 is lemon socialism and crony capitalism.

How is it possible that the cost of power will be higher than under a functioning market?

The clean air non-bypassable rider is paid for by all consumers and the market price of electricity will become artificially high causing further welfare losses among consumers. We know this because the clean air credits are designed to keep the most expensive producer in the market. If the first layer of electricity in the market is the costliest, then the average price of the entire bundle has to cost more than if the highest priced power was excluded from the power bundle. The conclusion is straightforward arithmetic.

The second reason why power will become more expensive than it would be in the absence of this legislation is that it deters entry by producers with potentially lower costs. *An increase in the overall cost of power in Ohio is an intended outcome of House Bill 6.* Keeping the most expensive power in the consumption bundle and the cheapest power out is not accidental drafting; it is intentional.

The fear expressed by representatives of the workforce at the Gavin Power Plant at the hearing is the subcommittee hearing in April is legitimate.[12] Coal-fired power plants that have played by the rules of competition and spent money to meet clean air mandates are the most likely losers in House Bill 6's market changes. The bill does not provide shelter from competition for the coal-fired plants, and it should not do so. Since these generating stations are likely to be the most expensive source of power in a flat market, after nuclear power it will be the source that will get rationed out of the market. While Gavin's power may be less costly than FES's nuclear product, the PPAs and legislative mandate will protect FES' production.

House Bill 6 contains the same PPA flaw in its design for supporting utility-scale solar power. The bill will make it easier to approve high-cost investments in solar that are supported by PPAs that remove incentives for efficient management. The IOU that executes the PPA will receive an authorized rate of return from the PUCO over the life of the PPA, and the investment of the solar investor is guaranteed as well. Meanwhile, investors in other sources of green power, which do not receive the same protection, will face the possibility of failing. They have investment risk. The favored alternative energy providers have no investment risk

[12] Testimony of Michelle LeMaitre, Electrical Maintenance Supervisor at Gallia County's Gavin Power Plant. https://ohiomfg.informz.net/ohiomfg/data/images/Testimony_MichelleLemaitre_Lightstone_Opp.pdf

There is a market for more expensive green electricity, and the cost of solar continues to fall. Take advantage of markets.

Carbon reduction in electricity consumption can take place in Ohio. The first step is to remove all regulatory barriers buried in the ESPs that reduce the payback that companies can receive from their investments in energy efficiency, co-generation, and behind the meter, or plant wall, clean energy production. IOUs should not earn money for energy that is not produced. The second step is to make it easier to market green power by offering carbon reduction credits to the consumer of green energy rather than to producers, these could be limited to in-state power production. Consumption credits will stimulate demand and provide incentives for efficient green energy production. They can also sunset, limiting the subsidy. Unfortunately, Ohio cannot consider imposing a carbon tax on its own because that will drive up the cost of production in our state compared to neighboring states and drive investment across our border. Finally, judiciously support investments in an industrial natural gas pipelines through loan guarantees so that Appalachia can benefit from abandoned power generating sites and help bring hope and opportunity to the river counties of Ohio.

Using political power to affect the competitive organization of the power market increases investment risk for investors in new sources of power production. They are investing in a market with stagnant demand. They are investing because they have lower cost technologies. They are investing with the intention of crowding out their expensive competitors. This is how capitalism works.

Thank you for providing me the opportunity to testify. My opinion article in the May 6th issue of *Crain's Cleveland Business* follows.

CRAIN'S CLEVELAND BUSINESS
https://www.crainscleveland.com/opinion/personal-view-bailing-out-firstenergys-failed-nukes-harms-ohios-economic-future

OPINION

Personal View: Bailing out FirstEnergy's failed nukes harms Ohio's economic future

Ned Hill, May 05, 2019

The bailout of Northeast Ohio's two nuclear power plants under House Bill 6 has the momentum of a bowling ball rolling down an alley after the world's most expensive wax job. The bill will result in higher electricity generating and capacity charges for all Ohioans, deter investment in electricity generation not controlled by Ohio's investor-owned utilities, lower the reliability of the state's electric system and hurt economic development prospects.

FirstEnergy is pushing Ohio House Bill 6 to bail out its multibillion-dollar obligations to close and clean up its failing nuclear and coal-fired power plants.

In addition to the bailout money, disguised as clean-air tax credits, H.B. 6 will result in higher electricity generating and capacity charges for all Ohioans, deter investment in electricity generation not controlled by Ohio's investor-owned utilities (IOUs), lower the reliability of the state's electric system (known as reserve capacity) and hurt economic development prospects.

There is so much wrong with the bill that legislative horse-trading on its minor provisions will not remove the harm. And there is so little known about FirstEnergy's legal obligations on plant closing and cleanup, how the hedge funds that invested in FirstEnergy last year will benefit, and the rewards promised to FirstEnergy's senior management for bringing home the pork that supporting or voting for H.B. 6 is irresponsible.

Ohio's Consumers Counsel and the Legislative Service Commission put the direct cost of the bill at $300 million a year. RunnerStone, an independent energy-efficiency consulting firm, estimates the direct cost at $310 million. But that is just the start. RunnerStone states that H.B. 6 will trigger additional new capacity charges amounting to $80 million per year or more. Another $88 million per year in profit currently received by the IOUs for energy-efficiency services will not be eliminated, as implied by the bill's supporters. Instead, it becomes a new unearned revenue stream.

H.B. 6 is a bailout without an end date. The charges will go on for as long as the nuclear plants operate. The real increase in electricity charges will be about a half-billion dollars a year (conservatively $468 million, plus the increased cost in electricity generation charges), which will be adjusted to offset the impact of inflation.

The cost to electricity users is underestimated. H.B. 6 forces all of Ohio's electricity users to pay for the bailout, not just those in FirstEnergy's service territory. The bill orders residential customers to pay $2.50 a month, commercial businesses $20 a month, industrial customers that use fewer than 45 megawatts (MW) of electricity a year $250 a month, and large industrial users $2,500 a month. Most assume that "customer" means a residence or a business at a specific address, but in electricity-world, this is expensively incorrect.

A customer is an account, and each account is an electric meter. If your business has multiple meters, multiply the bailout tax by the number of meters. For an eight-person manufacturing business with four electric meters and a $803 monthly bill, or an annual bill of $9,636, the proposed law will increase the total monthly bill to $1,785: (4 meters x $250 from the clean-air rider) + ($803 in existing charges) – (4 x $4.39 from the eliminated energy-efficiency rider). The annual bill nearly doubles to $21,420. The nearly $12,000 increase is a 122% jump.

Companies in older buildings that have expanded over time are likely to have multiple meters. Those that metered specific locations or machines to track usage accurately will face much higher bills.

Can the accounting be shifted back to a business at a single address instead of an account? No. The $300 million in annual "clean-air credits" was used to back into the promised monthly charges, spreading the cost over the number of meters. If customers were defined by address, rather than meter, then the pool of available credits would drop.

Can the promised payment schedule be kept? No. The bill adjusts the $9.25-per-megawatt value of a clean-air credit for inflation. It does not change the amount that customers are forced to pay similarly. Over time, the gap between the payments made to the utility and the amount of money collected from users will grow.

The classification of a nonresidential customer is also fuzzy. The bill states the classification depends on the business's utility classification; however, utility classifications do not align with the bill's terminology. How are large nonindustrial electricity-using businesses, such as grocery stores and back-office facilities, classified?

If H.B. 6 passes, the cost of electricity generation will increase, the cost of reserve capacity will increase, and reliability will diminish. This becomes clear once you understand how H.B. 6 will re-regulate and re-monopolize electricity generating markets in Ohio.

- Nuclear-generating plants and utility-scale alternative-energy generation will be able to execute long-term, above-market-price power purchase agreements (PPA). They will be the first electrons used in the pool of power consumed. In a flat power market, these government-protected, first-in, high-priced electrons will cause lower-cost power to be kicked out of the pool. The result will be higher average generating charges than would be found in a competitive market.

Keeping the most expensive power in the consumption bundle and the cheapest power out is not accidental. It is intentional.

- Federal regulators are trying to protect the multistate generating and capacity markets from predatory behavior from state-subsidized power production. A rule supported by FirstEnergy would allow utilities to opt out of the multistate capacity market and generate or contract for electricity themselves. The result: profit-maximizing utility choice substituted for cost-minimizing customer choice. And higher power bills.
- Ohio also will see an increase in special-interest petitions made to the PUCO by connected employers for "reasonable rates." Electricity rates will decline to some negotiated level for certain businesses through an economic development and retention process run by the PUCO. The negotiated rates will be held as confidential business secrets. The negotiated savings will become expenses passed on to unconnected businesses and residential customers to pay.
- H.B. 6 also will discourage investment in efficient natural gas-fired, combined-cycle power plants. The bill helps ensure that Ohio's abundant and clean sources of natural gas will be drilled, put into pipes and shipped out of state so the value that could have been added in Ohio will take place elsewhere. Using political power to affect the competitive organization of the power market increases investment risk for investors in new sources of power production. They are investing in lower-cost technologies to crowd out their expensive competitors. This is how capitalism works.

As the Tennessee Valley Authority lowers its electricity rates in our competitor states to the south, Ohio is going in the other direction. If enacted, H.B. 6 will trade the economic future of Ohio to bail out a badly run company that made large campaign donations. It's crony capitalism and lemon socialism.

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