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Chairman Dovilla, members of the Committee on Policy and Legislative Oversight, good afternoon, and thank you for inviting me to provide testimony before you here today. My name is Todd Snitchler, and I serve as the chairman of the Public Utilities Commission of Ohio.

The PUCO was created to assure Ohioans adequate, safe and reliable public utility services at a fair price. More recently, the PUCO gained responsibility for facilitating competitive utility choices for Ohio consumers. In carrying out this mission, we must balance consumer protection, while creating a fair, competitive environment, while relaxing regulation where appropriate.

In my role as chairman of the PUCO, I also serve as the chairman of the Ohio Power Siting Board. Earlier this year, the Board approved the construction of the Oregon Clean Energy Center, a 799 MW natural gas-fired generating facility and the expansion of the Rolling

Hills Generating Facility, adding 544 MW in increased natural gas generation. Over the previous several years the Board has certified eight commercial scale wind farms totaling 428 wind turbines capable of generating 852 MWs.

The Board is also responsible for siting electric transmission lines, electrical substations and certain types of high capacity natural gas transmission lines.

Since 2008, the PUCO and Ohio's electric distribution utilities have been transitioning from the traditional regulated model of vertically integrated utilities to a more market based approach. Recently, we approved a plan that paves the way for the Dayton Power & Light company to move to a competitive model where its generation assets are spun off from the utility and electric prices are sourced from a series of competitive auctions. DP&L will join FirstEnergy, Duke Energy and American Electric Power as the fourth and final Ohio utility to implement this corporate structure.

The benefits of these new structures are many. Separating assets causes utilities to make investment decisions based on market conditions, leading to greater efficiencies. When generation assets are no longer vertically integrated, utilities can no longer favor their own generation, allowing for competitive suppliers to enter the marketplace. Not only does a competitive market work to keep prices low and stable, but it drives innovation. Over the past two-to-three years we've seen market participation grow at a healthy rate, and we expect products offered by competitive suppliers to continue to evolve to meet consumer demand.

With formalities out of the way, let's talk about coal-fired generation retirements, coal and Ohio's energy future. PUCO staff and I have been predicting, monitoring and seeking to mitigate the effects of the coal-fired retirements since I first became chairman. I understand the challenges before us in Ohio and have a vision of Ohio's energy future.

The United States is home to the world's largest recoverable coal reserves, with enough fuel to power the economy for another estimated 290 years. 25 states have mining operations, responsible for more than 750,000 jobs. With over 1 billion tons of coal mined last year (93 percent of which goes towards electric generation), nearly half came from the Eastern region, which includes Ohio and our neighbors in Kentucky and West Virginia. Latest projections from the Energy Information Administration indicate production numbers will continue, if not slightly rise this year and next despite federal regulations.

Now as is evident to most of us here today I'm sure, Ohio's energy landscape has changed dramatically over the past five years. Federal Environmental Protection Agency rules, low natural gas prices, state renewable energy portfolio standards and energy efficiency requirements are all working together to change how Ohio's electricity is generated and sold. In 2010, 65% of Ohio's installed capacity was coal-fired, generating approximately 80% of the state's

electricity. As we know, due to the new Clean Air Interstate Rule (CAIR), Mercury and Air Toxic Standards (MATS), Boiler MACT and other rules that the U.S. EPA has proposed and implemented over the past few years, Ohio power generators have made the business decision to retire over 6.5 GW of coal-fired generation between now and 2015 (45 GW nationally), with more generating units expected to be slated for retirements beyond that time period. The announced and anticipated retirements of generators could result in an almost 20% reduction in installed coal capacity in Ohio, many of which are located in SE Ohio and along the Ohio River.

In June the president directed the U.S. EPA to develop further CO2 rules for existing coal powered plants with the stated goal of having rules in place by June 2015. An objective in the presidential report calls for a 17% economy-wide reduction in CO2 emissions from 2005 levels by the year 2020. A 17% economy wide reduction in CO2 emissions requires about a 30% reduction in CO2 emissions in the power sector. In September, the U.S. EPA announced its first

steps under President Obama's Climate Action Plan to reduce carbon from power plants. It appears EPA is proposing separate standards for certain natural gas-fired combustion turbines and for fossil-fuel-fired utility boilers as well as integrated gasification combined cycle units.

As such, PUCO staff has conducted preliminary analysis to determine the production cost impacts of converting coal-fired utility boilers to combined cycle natural gas turbines due to the impact of the president's plan and any resulting U.S. EPA rules. The reason staff analyzed this switch instead of other compliance options is due to coal retirements already occurring. The results could be severe. The generation needed to switch from coal to natural gas to comply by 2020 would be roughly 12.5 to 35.5 million MWh per year. The impact on customer's bills range from a 0.3% to as much as a 28.35% increase in the energy costs on ratepayer's bills depending upon compliance with current SB 221 requirements.

Additionally, these figures do not include capital costs which could amount to between $2.3 and $6.7 billion dollars.

The Clean Air Act provides that U.S. EPA shall establish a procedure for states to submit plans containing performance standards for existing sources. Also, Ohio EPA will be developing a state implementation plan for Ohio's compliance. While Ohio has made great strides in reducing emissions, including carbon, if state programs are included in a federally enforceable programs such as the EPA compliance program, these programs could become subsumed by U.S. EPA. Further, these state programs could be subject to an "anti-backsliding" provision, thereby prohibiting any changes, even if they would be in the interest of the state and its policy needs and goals.

I can't help but pause here to take note, that despite U.S. and Ohio's efforts to date, making significant headway in reducing all emissions, the current federal administration is forging full force ahead with further requirements. And we should note climate

issues have broad international implications. And yet, coal plants continue to be built around the world at astonishing rates as demonstrated by our increased coal exports. We might want to take a page out of other nation's playbooks and think about future reliable power needs (particularly baseload generation) at rates consumers can afford and the economy can grow on.

Coal plant closures have already shown their affects in the PJM capacity market, specifically the ATSI zone in Northeastern Ohio. Capacity costs in that zone will jump from the current $27/MW day to $347/MW day beginning in June 2015, compared to $136/MW day for the rest of Ohio and PJM. Transmission operators and generators are already responding, just last year PJM Interconnection authorized $6.2 billion in transmission improvements across the PJM footprint in order to maintain reliability due to retirements and fuel switching, including in the ATSI zone. While the planned transmission upgrades are promising to mitigate the capacity costs, their own economic costs cannot be

ignored. Since most of the transmission investments in the ATSI zone and throughout Ohio are due to reliability needs, those costs will be recovered from ratepayers within those zones or regions.

For reasons I just mentioned, in early August Governor Kasich and I sent letters to the president of the United States to express concerns over the U.S. EPA's proposed NSPS standards noting significant challenges for the electric power sector with respect to the economic burden and the reliability of electric service in Ohio and throughout the nation. I specifically asked that he support changes to the rules that will allow for achievable standards for future electricity production from all types of generating sources, including coal.

I also cautioned about the "dash to gas" scenario, stating my concern that the more dependent a system is on one specific fuel type, the more price risk and volatility there exists for ratepayers. The proposed U.S. EPA regulations will not allow states and regions to develop diverse portfolios that incorporate resources unique and

abundant to a specific geographical area. States must be allowed to keep all fuels, including coal, in the resource mix.

In addition to cost and volatility concerns, there are other system operation anxieties regarding the increased use of natural gas in electricity production. Having recognized the lack of coordination or harmonization between the natural gas and electric industries, the Federal Energy Regulatory Commission has opened a docket requesting input from key stakeholders regarding the need for improved communication between the two industries and better understanding of the operation differences between the two markets. Public utility commissioners across the nation are interested in grid and pipeline reliability—and ensuring these two industries are working and communicating together to avoid reliability concerns.

More specifically, one significant concern with the switch to gas is pipeline constraints. Fuel is delivered in real time to natural gas generators and—unlike coal plants that can store months of fuel on

site—if a pipeline operator can't deliver, the generator can't run. For obvious reasons this scenario concerns regulators, for whom reliability is among our chief concerns. And this isn't just a hypothetical either. Just this summer an Ohio natural gas generator couldn't provide service due to insufficient pipeline capacity and the nature of their interruptible pipeline contract. While Ohio was fortunate the grid was able to adapt and call on alternative generators THIS time, the implications for our economy and national security are real.

Additionally, as chairman of the Ohio Commission, through congressional testimony, submitting comments to the Federal Energy Regulatory Commission and through my role as a board member of the National Association of Regulatory Utility Commissioners and Gas Committee co-chair, I have communicated to federal policymakers at every opportunity the dire consequences that these federal regulations may have on the state of Ohio's economy.

The reductions in coal capacity and their effect on the economy only intensifies the challenge for Ohio to be innovative and create solutions to the changing landscape that allow the region to rely upon a diverse generation portfolio capable of delivering the reliable power we have come to expect.

On top of the coal closures, 30 states (plus D.C.) have some sort of renewable energy standards, including Ohio. The intermittent nature and small scale of these resources only underscores the need for reliable baseload generation going forward.

To be clear, Ohio needs a balanced approach where coal and natural gas, along with other cost-effective resources, peacefully coexist so that we do not become overly reliant on any one fuel source. An unbalanced dependence could leave us vulnerable to rapid price fluctuations due to changes in commodity prices. We only need to reflect back over the last 20 years and see the volatility of the natural gas market. As I commonly say, the Commission is fuel agnostic—but reliability and cost focused.

Several points should still be made. First, while current generation needs are being met, we will need additional base load capacity in the Midwest as a result of the anticipated coal retirements. And there is a need to act now as 2015 is only a year and a half away, and new generations is a 3-5 year construction process. Secondly, while shale gas will be a major component of the here and now planning by our utilities, NOBODY doubts that coal needs to continue to play a major role in our future generation mix. The recent news out of The Ohio State University's Clean Coal Research Laboratory is encouraging; a pilot plant will open later this year. Coal gasification technology as well as advanced supercritical technology will ensure that coal will keep a major place in the future resource mix.

While the possibility of upcoming EPA CO2 rules certainly looms heavily over us, we are at the same time making major strides in reducing CO2, SOX, NOX and particulate emissions, in addition to technological advancements, which again will further allow coal to

be competitive. Specifically, SOX, NOX and particulate emissions have been reduced by 88% over the previous 40 years.

Ohio has done significant research and work regarding the major classes of geologic CO2 storage reservoirs. Ohio is rich in deep saline formations, enhanced oil recovery opportunities and non-mineable coal beds. And who knows what the future holds in marrying shale production and CO2? Enhanced oil recovery, which is the ideal short term CO2 utilization, is a viable option in Ohio. The CO2 demands in the southern part of the country are an attractive market; however, Ohio also has tens of thousands of local wells ripe for such an opportunity. Earlier research demonstrated very positive production results in the tested fields and does not require drilling new wells. Some of our generation facilities are in close proximity to the untapped oil fields and the carbon generated could be a viable source for enhanced oil recovery. The longer term options, such as deep saline formations and coal beds are located

throughout the regions as well. These possibilities will play a major role in our energy future and the future of coal.

What is interesting is that the slight rise in natural gas prices in the past few weeks is making coal again competitive in generating units that are already scrubbed and in compliance with environmental regulations. Given the fluctuating costs of coal and gas, the need for fuel diversity and a utility's ability to maximize their return by closely monitoring fuel costs, and switching as pricing warrants, will help minimize price fluctuations and stabilize pricing over a longer period of time.

Barriers to New Entry

There is another issue that needs to be discussed as electric generation makes the transition to a deregulated market. We cannot ignore possible barriers to new utility electricity generators participating in the market, and there are a few of these that I and the staff at the PUCO continually work to eliminate. These include

U.S. EPA Clean Air Act Non-attainment Areas in key areas needing new generation, as well as the PJM interconnection queue that seems to favor legacy transmission owners and therefore legacy utility generators. Finally, as I recently testified before the FERC, the PJM capacity construct itself is not robust enough to trigger an economic decision to build new power plants in northeast Ohio where capacity prices have been high in recent years.

If Ohio wants to replace the retiring generation with anything other than transmission projects or energy efficiency and demand response, then these barriers will need to continue to be addressed, a role in which the Commission is and will remain very active.

Conclusion

Finally, while the coal industry is facing challenges, I am confident in its ability to adapt and thrive. Since 1970, the industry has invested approximately $110 billion to reduce emissions from SOX, NOX and particulates by approximately 89.5 percent! Technology has been

advancing at a bristling pace, and coal is at the forefront of these advancements. I believe advanced coal technologies will play an integral part in shaping Ohio, and America's energy future. And as I stated earlier, despite pressure from regulators, coal is absolutely essential to a healthy and reliable generation portfolio here in Ohio. Coal can offer what many other fuel sources cannot: reliable baseload generation and relatively stable prices.

Again, I'd like to thank the Committee for inviting me here today to present testimony and I'd be happy to take any questions.