

Testimony of Frank J. Macchiarola, American Petroleum Institute

The Ohio Senate, Energy & Public Utilities Committee

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Chairman Wilson, Vice Chair McColley, Ranking Member Williams and members of the Committee, thank you for the opportunity to testify today. My name is Frank Macchiarola, and I am Vice President of Downstream and Industry Operations at the American Petroleum Institute (API).

API is the national trade association representing America's oil and natural gas industry. Our 628 members - from large integrated oil and gas companies to small independent companies - comprise all segments of the industry. API member companies are producers, refiners, suppliers, retailers, pipeline operators and marine transporters as well as service and supply companies providing much of our nation's energy.

Over the past decade, the energy revolution in American oil and gas from unconventional shale resources has created greater energy security and driven economic growth in areas across the country, including here in Ohio. The oil and natural gas industry now supports approximately 10.3 million American jobs and nearly 8 percent of the overall U.S. economy. This productivity includes the support of more than 250,000 jobs¹ and over \$74 billion in shale-related investments since 2011 in the State of Ohio alone.² In fact, API member operations and investments continue to add meaningful economic value throughout the entire Appalachian region and our member companies have a diverse interest as it relates to the proposal before this committee today.

API represents industry leaders in the development, transportation and processing of Ohio's shale gas resources, as well as refineries and retail gasoline stations that consume substantial amounts of energy in order to

¹ *Impacts of the Natural Gas & Oil Industry on the U.S. Economy, 2015 PWC*

<https://www.api.org/~media/Files/Policy/Jobs/Oil-and-Gas-2015-Economic-Impacts-Final-Cover-07-17-2017.pdf>

² *Shale Investment Dashboard in Ohio Q1 and Q2 2018*, Cleveland State University's Maxine Goodman Levin College of Urban Affairs. <https://www.jobsohio.com/wp-content/uploads/2019/04/Shale-Investment-Dashboard-in-Ohio-Q1-and-Q2-2018.pdf>

operate. As significant producers, suppliers and consumers of energy in Ohio, we appreciate the opportunity to testify before you today on H.B. 6.

H.B. 6

To be clear, API supports an all-of-the-above, level-playing field approach to U.S. energy policy and to specific policies impacting electricity generation - including those regarding natural gas, nuclear, coal, wind, solar and other renewables. However, such policies must allow markets to drive generation decisions rather than government subsidies and mandates. Subsidies and mandates distort competition and choice in the energy markets and inevitably result in inefficiencies and higher costs for the energy consumer. H.B. 6 violates the principle of fair and free-market competition in several ways, as it authorizes a monthly charge potentially paid by all Ohio customers to compensate electric generating facilities through a new Clean Air Program established by this legislative proposal.³ In short, under the guise of a clean energy fee, this bill imposes additional costs on the average Ohio resident to subsidize the operations of a publicly traded electric utility.

This legislation also permits electric distribution utilities to recover the net impact of their ownership interest in two coal plants operated by the Ohio Valley Electric Corporation – including one plant located outside of the state.⁴ Subsidizing an out-of-state coal facility is indefensible, particularly in legislation that purports to create an “Ohio Clean Air Program”. Additionally, last minute changes to this bill in the House allow for the application of subsidies for six large-scale solar projects already certified by the Ohio Power Siting Board.⁵ We recognize that the sponsors of H.B. 6 replace an existing alternative energy portfolio mandate thus exempting consumers from the fees associated with funding this requirement. However, replacing one mandate paid for by the Ohio consumer, with a new subsidy for an electric utility - again, paid for by the Ohio consumer - is deeply flawed energy policy.

³ Ohio Legislative Service Commission – Office of Drafting and Research, *Fiscal Note & Local Impact Statement* H.B. 6, May 22, 2019

⁴ The Plain Dealer, *Ohio House Passes Bill to Bail Out Nuclear Plants, Gut Green Energy Mandates*, May 29, 2019 <https://www.cleveland.com/open/2019/05/ohio-house-passes-bill-to-bail-out-nuclear-plants-gut-green-energy-mandates.html>

⁵ Ohio Power Siting Board – Power Siting Case Status, as of 5/17/19 <https://www.opsb.ohio.gov/information/solar-farm-map/>

H.B. 6 is anti-competitive legislation. Through a myriad of targeted subsidies and preferential treatment, this bill supports uncompetitive nuclear and coal generation while increasing the costs for Ohio rate-payers and discouraging investment in natural gas production and gas-fired power plants, despite the fact that such investment has provided a significant contribution to Ohio's economic growth over the past decade.

Natural Gas in Ohio

The State of Ohio is a leader in the American oil and natural gas revolution. According to the Ohio Department of Natural Resources, total natural gas production in Ohio increased by 1,715.5 percent between 2006 and 2016, from 79.2 billion cubic feet in 2006 to 1,437.3 billion cubic feet in 2016.⁶ The Ohio Development Service Agency notes that the continuing development of oil and gas extraction in Ohio - valued at \$6.97 billion and ranked fifth in the nation at 4.3% of national output - helped push Ohio to third in total goods production in the United States.⁷ Progress continued in the first quarter of this year as natural gas production in the Utica Shale increased 14.57 percent over the first quarter of 2018, while oil production increased nearly 30 percent year-over-year during first quarter 2019.⁸ This progress in the development of Ohio's natural resources was not brought about by government subsidies and higher costs imposed on Ohio consumers. Rather, the Ohio shale revolution was borne out of promoting innovation and ingenuity that brought about technological advancements in horizontal drilling and hydraulic fracturing.

During this period of significant growth in natural gas production in Ohio, the use of natural gas for electricity generation has experienced substantial growth around the country. Over the past 15 years, natural gas deliveries to electric power consumers has doubled.⁹ And, according to the U.S. Energy Information Administration (EIA), the share of total U.S. utility-scale

⁶ Ohio Department of Natural Resources, 2018 <http://oilandgas.ohiodnr.gov/>

⁷ Ohio Development Services Agency, *Ohio Research Office Gross Domestic Product from Ohio, September 2018*, 17. <https://development.ohio.gov/files/research/E1001.pdf>

⁸ Ohio Department of Natural Resources, Division of Oil and Gas Resources, *Ohio's Utica Shale First Quarter Production Totals Released* May 31, 2019 <http://oilandgas.ohiodnr.gov/division-updates/post/ohio-s-utica-shale-first-quarter-production-totals-releasedd>

⁹ U.S. Energy Information Administration, *U.S. Natural Gas Deliveries to Electricity Consumers*, May 31, 2019 <https://www.eia.gov/dnav/ng/hist/n3045us2a.htm>

electricity generation from natural gas-fired power plants will rise from 35% in 2018 to 37% in 2019 and 38% in 2020.¹⁰ If the market is allowed to operate without unfair intervention and distortions of the kind proposed in H.B. 6, the State of Ohio remains poised to continue to provide this foundational fuel for our nation and to build on the economic growth of the past decade. Between 2011 and 2017, core shale-related industry employment increased over 98%, with the Central region outpacing the second-closest region (South) by more than double in the largest percentage employment rise.¹¹ Policies that promote increased taxes, burdensome regulations and unfair subsidies such as those included in H.B. 6 will serve to stifle competition and deter continued investment in Ohio. The above-market subsidies provided to nuclear generation in this legislation that is the subject of today's hearing will place natural gas generation at a disadvantage, place an unfair burden on Ohio consumers and job-creators, and threaten Ohio's significant advantages in today's new American energy paradigm.

Natural Gas Reliability

Throughout this debate, some opponents have warned that increased reliance on natural gas may threaten grid reliability noting the on-site storage capability of nuclear plants. However, PJM Interconnection, the regional transmission organization (RTO) that coordinates the movement of wholesale electricity in the region that includes Ohio¹² noted in 2017,

*"in light of the increasing contribution of natural gas-fired generation and retirement of coal-fired generation, PJM has undertaken several natural gas analyses to assess potential system reliability implications. All the studies generally concluded that the existing and planned natural gas pipeline infrastructure would be adequate for current and future anticipated electric system needs."*¹³

PJM went on to further note that today's resource profile in PJM is both reliable and diverse.¹⁴ In April 2018, PJM undertook an analysis to study "the fuel security aspect of resilience", analyzing 324 different scenarios and

¹⁰ U.S. Energy Information Administration, *Short-Term Energy Outlook*, June 11, 2019

<https://www.eia.gov/outlooks/steo/>

¹¹ Ohio Department of Jobs and Family Services *2017 Annual Ohio Shale Report*

<http://ohiolmi.com/OhioShale/2017AnnualShale.pdf>

¹² PJM Interconnection, <https://www.pjm.com>

¹³ PJM's Evolving Resource Mix and System Reliability, PJM Interconnection, March 30, 2017

<https://www.pjm.com/~media/library/reports-notice/special-reports/20170330-pjms-evolving-resource-mix-and-system-reliability.ashx>

¹⁴ Id.

concluding: “the PJM is reliable today and will remain reliable into the future.”¹⁵ As independent analysts, policymakers and regulators continue to study these questions of reliability, resiliency and fuel security, we are confident that the unique attributes and value of natural gas will continue to be apparent. Additionally, we are equally confident that as resource profiles and the generation mix continues to evolve over time, natural gas is poised to continue to meet U.S. energy demand in an affordable and reliable manner.

The critical component of reliability is not diversity of fuel source but rather diversity of attributes, of which natural gas possesses superior characteristics. Natural gas remains the only form of generation that is able to meet each of the following attribute categories: ability to meet sudden demand change, frequency of response and reactive power to maintain grid stability, ability to run consistently at baseload levels, maintain fuel security through storage or transport contracts, possess multiple fuel sources, and utilize domestically produced fuel.¹⁶

An Abundant Supply of Natural Gas

Some proponents of H.B. 6 also warn against over-reliance on natural gas, citing the potential for price volatility and the threat of insufficient supply. This claim directly conflicts with the clear, direct evidence of the paradigm shift in U.S. natural gas production since the shale gas revolution as well conservative estimates of the abundant supply of resources that the U.S. will continue to access over the coming decades and the price stability that is likely to coincide. Directly countering the fears propounded by some supporters of this legislation, in December of 2018, the EIA announced that the U.S. set a new record for natural gas reserves in 2017, approximately double the levels from a decade ago. Citing the long-term trend of development in shale plays, particularly in Northeast basins such as the Utica in Ohio, EIA went on to note that these new proved reserves records were

¹⁵ PJM Fuel Security Analysis, 12/18 <https://www.pjm.com/-/media/library/reports-notice/fuel-security/2018-fuel-security-analysis.ashx?la=en>

¹⁶ Testimony of Erica Bowman, American Petroleum Institute, Ohio Senate Public Utilities Committee, June 8, 2017 <https://www.api.org/news-policy-and-issues/testimony-and-speeches/2017/06/08/erica-bowman-testimony-on-ohio-nuclear-b>

established despite record natural gas production.¹⁷ In its 2019 Annual Energy Outlook, based on the application of current technology, EIA estimates that as of January 1, 2017 the United States had approximately 322 Tcf of proved reserves and 2,137 Tcf of unproved reserves of dry natural gas.¹⁸ This is enough natural gas to meet energy demand for decades to come. Additionally, EIA estimates that natural gas prices will continue to remain comparatively low out to 2050 leading to additional use of this fuel for end-use sectors.¹⁹ Further, EIA projects that natural gas production will outpace natural gas consumption in all scenarios during the next thirty years, with electricity prices declining slightly and renewables and natural gas projected to meet demand for new generating capacity.²⁰ The bottom-line is simple, over the coming decades and due to its unique fuel attributes, natural gas is poised to provide affordable and reliable fuel for the American consumer and absent market-distorting forces such as those proposed in H.B. 6, Ohio is well situated to benefit from its abundant supply of natural gas.

Clean Energy Legislation

Proponents of H.B.6 continue to advance the claim that this bill is clean energy legislation proposed to improve Ohio's environment. The facts simply do not support this claim. Putting aside the fact that this legislation will codify fees on the rate-base to support two coal-fired power plants, including one out-of-state, this legislation also eliminates a clean energy standard currently in law today. More pertinent to the question of whether a proposal seeking to suppress investment in electricity generation from natural gas is a clean energy proposal, one only need to look to the recent record of substantial reductions in CO² emissions as a result of fuel switching to natural gas to understand that H.B. 6 is clearly not about clean energy.

¹⁷ U.S. Energy Information Administration, *U.S. Crude Oil and Natural Gas Proved Reserves, Year-End 2017*, November 2018 <https://www.eia.gov/naturalgas/crudeoilreserves/pdf/usreserves.pdf>

Proved reserves are estimated volumes of hydrocarbon resources that analysis of geologic and engineering data demonstrates with reasonable certainty are recoverable under existing economic and operating conditions.

<https://www.eia.gov/naturalgas/crudeoilreserves/>

¹⁸ U.S. Energy Information Administration 2019 Annual Energy Outlook

<https://www.eia.gov/outlooks/aeo/>

¹⁹ Id.

²⁰ Id.

Instead, this bill is a substantial subsidy paid for by consumers to non-competitive power plants owned and operated by a publicly traded utility.

At the same time that the United States has become the world's leading producer of natural gas (as well as a leader in exporting LNG thus providing environmental benefits globally) CO² emissions declined to their lowest levels in a generation and while emissions rose slightly in 2018, the emergence of natural gas as the base-load fuel of choice in electricity generation has been a tremendously positive force in reducing overall CO² emissions in the United States. From 2005 to 2017, the U.S. economy grew by 20% while CO² emissions fell by 14% and during that same time period²¹, CO² emissions from electricity generation declined by 28%.²² More than 60 percent of the CO² reductions in the electric power sector from 2005 to 2016 were due to fuel switching from higher emission generation to natural gas generation.²³ In 2013, then Energy Secretary Ernie Moniz noted that the U.S. was on-track to meet the Obama Administration's 2009 targets of reducing CO² emissions by 17% below 2005 levels by 2020, noting then, "about half of that progress we have made is from the natural-gas boom, in this case the market-driven substitution for coal."²⁴ In addition to reductions in emissions of CO², the substitution of natural gas in power generation over the last several years has also led to significant reductions of NO_x and SO² emissions. In light of this, it is simply without merit to suggest that H.B. 6 is a clean energy proposal. Rather, this legislation seeks to turn back the progress we have made in the power sector while subsidizing uncompetitive generation sources at the expense of Ohio rate-payers.

²¹ Energy Information Administration *US Energy Related CO₂ Fell Slightly in 2017*

<https://www.eia.gov/todayinenergy/detail.php?id=36953>

²² Energy Information Administration *Carbon Dioxide Emission from US Power Sector Have Declined by 28% since 2006*

<https://www.eia.gov/todayinenergy/detail.php?id=37816>

²³ Energy Information Administration, U.S. Energy-Related Carbon Dioxide Emissions, 2015; Monthly Energy Review, March 2017

²⁴ The Hill *Energy Secretary: Natural Gas Helps Battle Climate Change – For Now* by Ben Geman.

<https://thehill.com/policy/energy-environment/315009-energy-secretary-natural-gas-helps-battle-climate-change-for-now>

Conclusion

As this committee considers H.B. 6 and the broader implications of subsidizing an uncompetitive business model at the expense of the average Ohio citizen, we urge you to reject this legislative proposal. In a recent survey, 70% of Ohio voters oppose House Bill 6 and 82% of Ohioans believe this bill could hurt senior citizens and families living on fixed income.²⁵ The public is right. This bill will harm the average Ohio consumer. On behalf of API and our member companies who produce, deliver and consume energy across this state, we urge you to reject this proposal.

Thank you for the opportunity to testify today and I look forward to your questions.

²⁵ The Harris Poll, *What America is Thinking on Energy Issues - Ohio*, June 2019.