House Committee on Energy & Commerce
Subcommittee on Energy

Testimony of
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Hearing to Consider the Efficacy of the Natural Gas Act
February 5, 2020

INTRODUCTION

Good morning Chairman Rush, Ranking Member Upton, and Members of the Subcommittee. I am Mike McMahon and I serve as Senior Vice President and General Counsel to Boardwalk Pipelines, LP. I am testifying on behalf of the Interstate Natural Gas Pipeline Association of America. Thank you for the opportunity to testify today.

ABOUT BOARDWALK PIPELINES

Boardwalk is a limited partnership whose interstate natural gas subsidiary companies include Texas Gas Transmission, LLC; Gulf South Pipeline Company, LLC; and Boardwalk Storage Company, LLC. Boardwalk, through its subsidiaries, operates approximately 14,000 miles of pipeline and underground storage caverns with an aggregate working gas capacity of approximately 200 billion cubic feet. Boardwalk is wholly owned by a public company, Loews Corporation, which is a large, diversified company. Loews' subsidiaries operate businesses not only in the energy sector, but also in the insurance, hospitality, and packaging industries.

I have served as the Senior Vice President, General Counsel and Secretary of Boardwalk and have been employed by Boardwalk or its predecessors since 1989. I also serve on Boardwalk GP, LLC's Board of Directors. Over the past 30 years, my practice has had a significant focus on natural gas regulations and policy. I serve on the Board of Directors of the Interstate Natural Gas Association of America (INGAA), was its Chairman in 2016, and serve as the Board representative on its legal & rates committee.

ABOUT THE INTERSTATE NATURAL GAS PIPELINE ASSOCIATION OF AMERICA

The United States has a highly-integrated pipeline network that can transport natural gas to and from nearly any point in the lower-48 states. This network of more than 210 natural gas pipeline systems includes approximately 300,000 miles of interstate and intrastate transmission pipelines, more than 1,400 compressor stations that maintain the pressure needed to transport natural gas

supplies, and more than 400 underground natural gas facilities. The mileage of domestic natural gas transmission pipelines is almost 6.5 times greater than the mileage of the U.S. interstate highway system.

INGAA is a trade association that advocates regulatory and legislative positions of importance to the interstate natural gas pipeline industry in the United States. INGAA's members represent the vast majority of interstate natural gas transmission pipeline companies in the U.S. INGAA's members, which operate approximately 200,000 miles of interstate natural gas pipelines, serve as an indispensable link between natural gas producers and consumers. The natural gas transported on the INGAA members' pipeline systems plays a core role in the U.S. economy and is used to generate electricity, as a feedstock in various industrial and manufacturing processes, and to heat our homes and workplaces. The INGAA members' interstate natural gas pipelines are regulated by the Federal Energy Regulatory Commission (FERC) pursuant to the Natural Gas Act.

SUMMARY OF THE TESTIMONY

The Natural Gas Act, enacted during the New Deal, has provided the statutory flexibility to allow for the restructuring of the nation's natural gas market to the benefit of consumers. Restructuring transformed interstate pipelines so that they are no longer merchants providing bundled natural gas supply and transportation services from wellhead (where natural gas is produced) to burner tip (where natural gas is consumed). Interstate pipelines are now open access transportation/storage providers focused solely on transporting natural gas from production areas to consuming regions. The Natural Gas Act has also provided the foundation necessary for the build-out of the interstate natural gas transportation system. This critical infrastructure build-out has significantly lowered energy costs for consumers, provided the feedstock for the manufacturing renaissance which has brought jobs back to the U.S., and remains the single most important catalyst for dramatically reducing greenhouse gas emissions in the United States and the world. Natural gas infrastructure makes it possible for the United States to generate more of our electricity from intermittent, renewable resources because natural gas is readily stored, energy dense, and uniquely compatible with quick-starting turbine technology required to make renewables reliable. Over the last 30 years, the pipeline industry has increased its level of reporting and transparency, providing price stability which has directly benefited end-use consumers. The Natural Gas Act has withstood the test of time and provides a stable and predictable regulatory framework for all parties that does not need to be changed. It remains true as it was when the Natural Gas Act was enacted in 1938 that, unlike other energy commodities, interstate pipelines are the only way to efficiently, economically, and safely transport natural gas from production areas to market.

My testimony will discuss the following points:

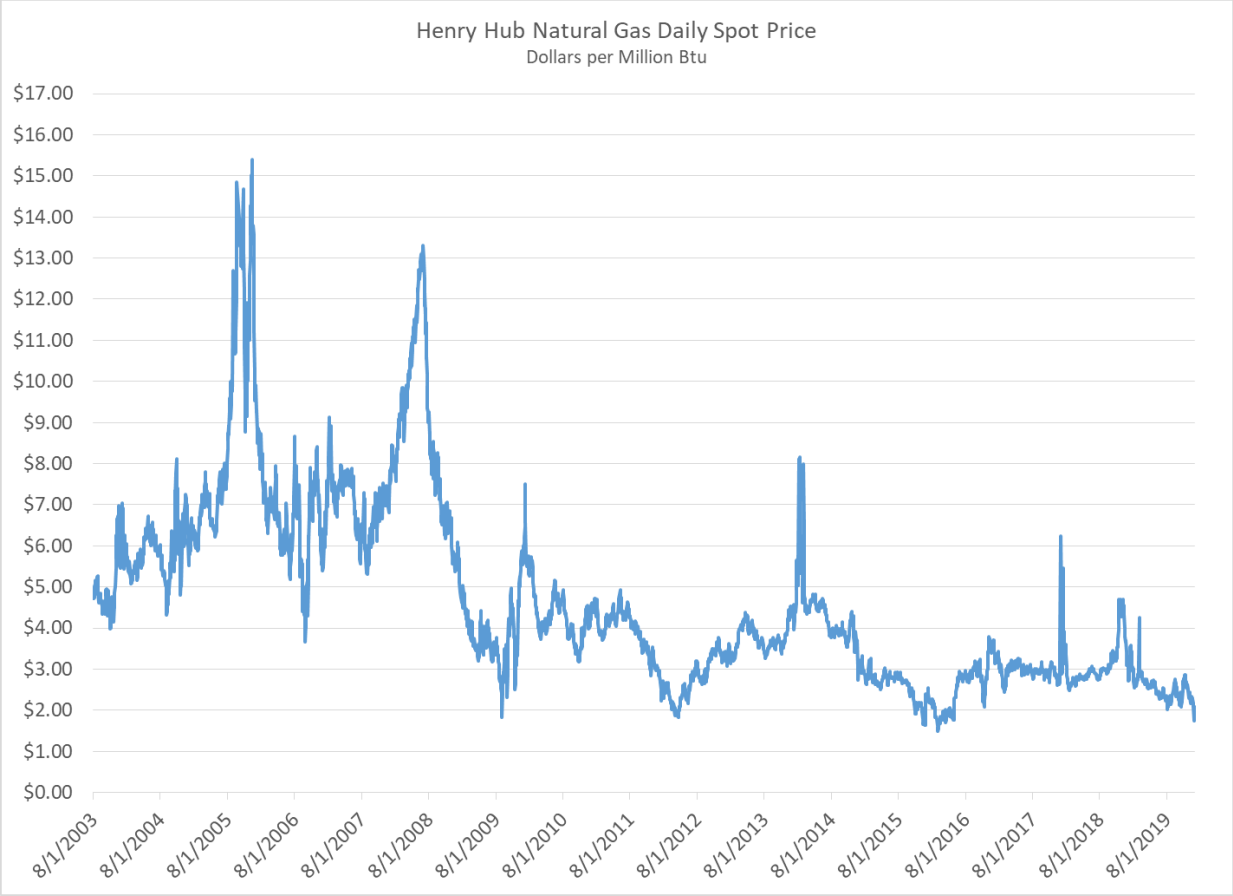
1) The Natural Gas Act has created substantial benefits to the nation's energy consumers and the economy as a whole. The Natural Gas Act has been flexible enough to accommodate fundamental changes to the gas industry, consumers' needs and to the economy.
2) Substantial infrastructure investment by interstate pipelines has ensured that U.S. consumers gain the benefits of the shale gas revolution. The Natural Gas Act provided the foundation for this build-out.
3) The core provisions of the Natural Gas Act appropriately balance the interests of consumers and investors. FERC has actively exercised its Section 5 authority to investigate pipeline rates and to ensure that customers' rates are just and reasonable.
4) Amending Section 5 of the Natural Gas Act to include a refund provision would disrupt the rate stability provided by the Natural Gas Act. This would increase overall costs for both pipeline companies and consumers, may inhibit the construction of pipeline infrastructure, and may limit the ability of U.S. consumers to realize the benefits of our domestic energy abundance.
5) There are substantial differences between the natural gas and electric power industries and the core regulatory structure should recognize those differences rather than try to treat them as being similar.
6) Amending Section 7 of the Natural Gas Act risks impairing FERC's ability to site interstate natural gas pipelines in a timely, efficient, predictable, and market-responsive manner.

THE NATURAL GAS ACT HAS CREATED SUBSTANTIAL BENEFITS TO THE NATION'S ENERGY CONSUMERS AND THE ECONOMY AS A WHOLE.

I have seen the natural gas industry undergo substantial changes. Early in my career, the U.S. economy was becoming increasingly dependent on imports of natural gas. Most of these imports were from Canada. During the 1990's, imports of natural gas from Canada increased by 50% and the Energy Information Administration (EIA) projected that Canadian imports would account for nearly 20% of overall U.S. natural gas consumption by 2002. As time progressed, projections of increasing demand for natural gas along with projections of declining Canadian and domestic production raised real concerns of supply shortages. To address these projected supply shortages, the natural gas industry began to look to the importation of liquefied natural gas (LNG) from outside of North America to meet the projected gas supply needs of the country, and a number of LNG import terminals were approved by FERC and constructed during this time period.

Supply constraints led to substantial price increases. By late summer/early fall 2000, prices at Henry Hub (which is the pricing point for natural gas futures on the New York Mercantile

Exchange) were approximately $5.00 per MMBtu, with forward price curves suggesting natural gas prices in the $3.00 to $3.75 range for the next few years thereafter. In today's dollars, this would equal natural gas prices in a range of approximately $4.45 to $5.50. Those pricing projections underestimated the actual price increases that were actually coming. Natural gas prices increased and remained high for most of the remainder of the decade. Between 2003 and 2005, Henry Hub prices were typically more than $5.00 with prices peaking in 2005 in the $10.00 to $15.00 range as shown on the chart below.



Source: EIA

The natural gas supply picture in the continental U.S. began changing dramatically beginning in the late-2000s with the revolution in technology that has allowed for the production of natural gas from shale gas reserves. Shale gas provides an abundant, inexpensive, and clean-burning supply of natural gas for the U.S. economy.

To allow consumers to benefit from the new supplies, the interstate pipeline industry has made, and continues to make, substantial infrastructure investments to expand, extend, and reverse gas flows and to modify their pipeline systems to transport shale gas supplies to consuming markets. Since 2005, the industry has added over 16,000 miles of new pipeline in major projects alone.

Boardwalk's pipelines added over 1,000 miles of new pipelines. Without this pipeline infrastructure, home and businesses would not have access to the inexpensive new gas supplies.

Natural gas prices have tumbled as a result of the shale gas revolution and the corresponding investment in pipeline infrastructure. With only occasional and infrequent exceptions, the price of natural gas at Henry Hub has been substantially below $5.00 since 2009 (see chart above). Natural gas prices were well below $3.00 for nearly all of 2019, and natural gas prices are currently hovering at the $2.00 mark.

The abundant availability of natural gas at low prices that is transported nationwide via the interstate pipeline network has greatly benefited the U.S. economy:

- ***Helping reduce CO_2 emissions.*** Low natural gas prices have allowed the U.S. to transition away from coal for the generation of electricity. The past decade has seen the large-scale retirement of coal-fired generation facilities and substantial additions of gas-fired generation facilities. At the beginning of the 2010s, coal had an approximate 45% share of total electric generation. By the end of the decade, coal's share fell to less than 25%. Natural gas's share of total electric generation increased from less than 25% to nearly 40% during that same time period. Natural gas plays a critical role in providing baseload generation for the nation's electric grid and is necessary to ensure electric reliability. Increased use of natural gas was the single biggest factor in reducing CO_2 emissions from the electricity sector between 2005 and 2018.(Source: EIA)

- ***Complementing renewable energy.*** The increased use of natural gas for electric generation has also allowed renewable energy resources, particularly wind and solar, to become increasingly integrated into the electric generation mix. Natural gas-fired generation helps to increase the penetration of renewables by serving as a "backstop" source of electric generation that ensures electric reliability during times when wind and solar resources are not available due to lack of wind or sunshine or other impactful weather conditions. From 2010 to 2019, non-hydro-electric renewables' share of the electric generation mix increased from less than 5% to approximately 12% and is expected to reach 15% by 2022.(Source: EIA)

- ***Lowering prices for residential consumers.*** Access to low natural gas prices directly benefits residential consumers. The American Gas Association (AGA) has found that low domestic natural gas prices have led to savings of nearly $50 billion for residential consumers, and AGA projects that this low price environment will persist through 2040.

- ***Lowering prices for commercial consumers.*** Commercial natural gas consumers, who use natural gas for space and water heating, including schools, hospitals, offices, factories, and stores, also benefit from low gas prices. The prices of natural gas, adjusted for inflation, that are paid by commercial customers are at a 40-year low, and commercial customers' utility bills are at the lowest since the AGA began collecting data in 2003.

- ***Helping revitalize U.S. industry.*** Low natural gas prices have helped revitalize the U.S. industrial sector, which accounts for approximately one-third of total U.S. gas consumption. The decline in industrial consumption of natural gas has been reversed due to substantial new investment, particularly in the manufacturing and chemical industries, that is designed to take advantage of low-cost gas supplies. In the Gulf Coast region (including Texas, Louisiana, Mississippi, and Alabama), industrial consumption grew by 37%. (Source: EIA) Natural gas is valued not only as a fuel, but also as a critical ingredient in products such as pharmaceuticals.

- ***Enhancing energy security.*** The U.S. consumer is no longer dependent upon natural gas imports, which has enhanced the nation's energy security. The U.S. has also become a net exporter of natural gas, with export levels expected to reach approximately 8.9 billion cubic feet per day in 2021. LNG exports will displace generation by coal and fuel oil in developing countries to help reach climate-related goals.

Interstate pipelines have played a key role in securing these benefits for the American people, and they have accomplished this under the regulatory structure of the Natural Gas Act.

SUBSTANTIAL INFRASTRUCTURE INVESTMENT BY INTERSTATE PIPELINES ENSURES THAT THE BENEFITS OF THE SHALE GAS REVOLUTION ARE ENJOYED BY CONSUMERS NATIONWIDE.

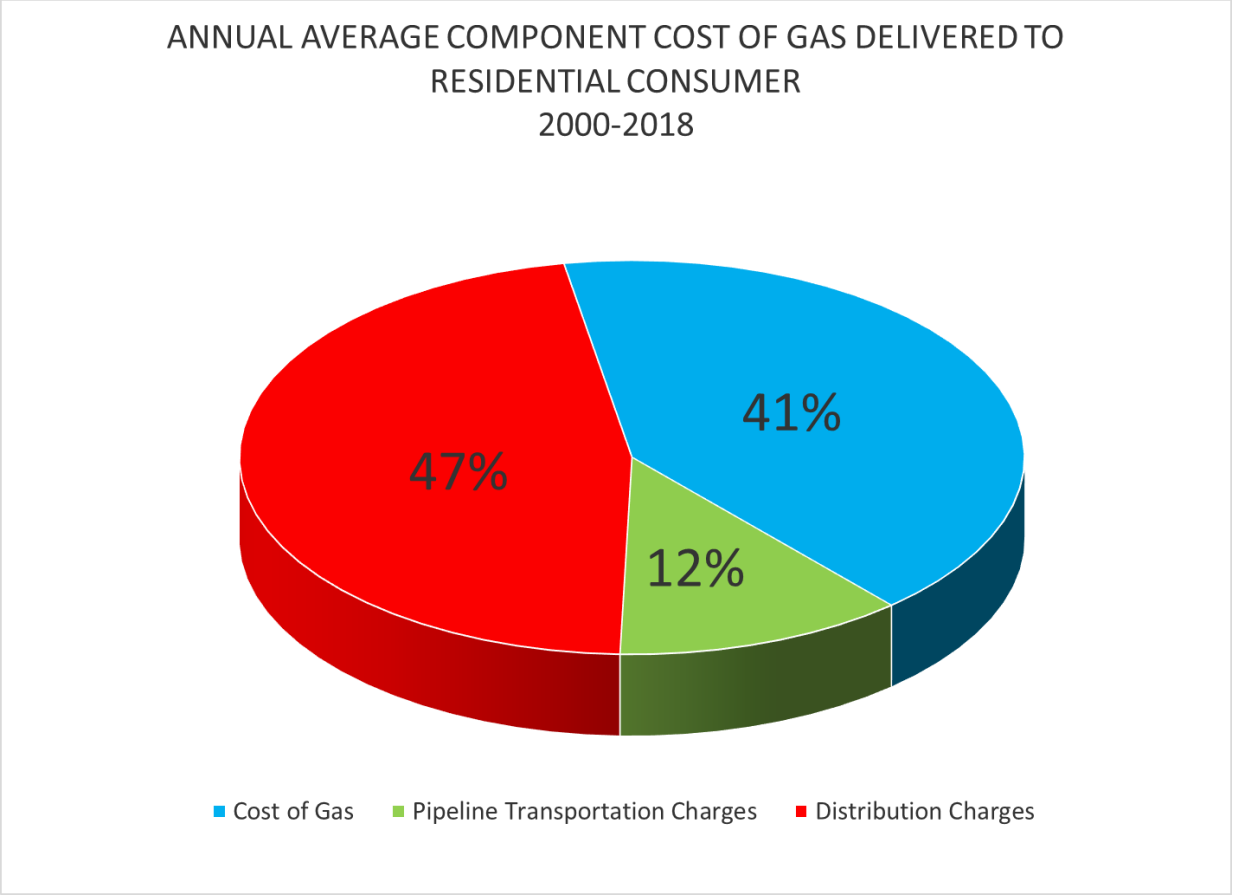
Interstate pipelines have made substantial investment in infrastructure to allow American consumers to benefit from the nation's abundant low-cost shale gas supplies. In data compiled by ICF International on behalf of the INGAA Foundation, interstate pipelines have invested over $110 billion in new infrastructure since 2005 to connect shale gas supplies to markets. Boardwalk has invested $6.5 billion in new infrastructure during that same time period. This infrastructure investment has created a resilient and flexible pipeline network that allows consumers in different regions of the country to benefit from low-cost gas supplies. Interstate pipelines are largely responsible for creating and sustaining low natural gas prices nationwide by ensuring there is sufficient pipeline capacity to bring low-cost gas supplies from the various natural gas shale plays that have developed since the late 2000s to consuming markets.

The additional pipeline infrastructure built over the last 15 years has largely eliminated the transportation bottlenecks that formerly caused substantial differences in regional natural gas prices. Before the infrastructure buildout, the interstate pipeline network did not have the ability to bring the new low-cost shale gas supplies to many regional markets. This created a large price divide between those markets with easy access to the low-cost supplies (which had relatively low natural gas prices) and those without access to low-cost supplies (which had significantly higher natural gas prices).

The construction of new pipeline infrastructure connected more markets to these low-cost supplies and allowed the benefits of the shale gas revolution to be shared more widely. For

example, in the mid-2000s, the lack of pipeline capacity across the Mississippi River, prevented low-cost shale gas supplies in Texas, Oklahoma, and Arkansas from reaching gas consuming markets in the east. This resulted in substantially higher prices to the east of the Mississippi River. New pipeline infrastructure completed and placed in service since 2009 has increased west-to-east pipeline capacity and substantially reduced that price divide. Similar pipeline build-outs have allowed other parts of the country to access the low-cost gas supplies produced from the Marcellus and Utica Shale production areas which are primarily located in Ohio, Pennsylvania, and West Virginia. The pipeline infrastructure build-out has greatly benefited U.S. natural gas consumers by helping to reduce natural gas prices nationwide. Exceptions such as the New England region still exist where needed pipeline infrastructure has been stalled or prohibited. Consumers in these regions have been denied the full benefit of low-cost and nearby natural gas supplies due to pipeline constraints and the resulting impact on regional pricing.

Interstate pipelines provide this benefit at a relatively low cost to consumers. Interstate pipeline transportation costs make up only a small percentage of the overall delivered price of gas to residential consumers. On average, during the 2000-2018 period, pipeline transportation charges accounted for 12% of the overall delivered price of gas to residential consumers with the remainder being split between distribution charges and commodity cost.



Source: EIA

THE NATURAL GAS ACT HAS BEEN SUFFICIENTLY FLEXIBLE TO ALLOW FOR FUNDAMENTAL CHANGES TO THE GAS INDUSTRY AND AMERICAN ECONOMY.

The Natural Gas Act, as the regulatory framework for interstate natural gas pipelines, continues to serve the nation's natural gas consumers well. The core ratemaking provisions of the Natural Gas Act have created rate stability and flexibility which helped facilitate the buildout of pipeline infrastructure over the last 15 years.

The Natural Gas Act was enacted in 1938 for the primary purpose to regulate the rates of interstate natural gas pipelines. At that time, there was very little competition among interstate pipelines. Interstate pipelines were merchants and provided a bundled transportation and commodity service to their customers. Often, there was only a single pipeline connecting the places where gas was produced to a consumer market.

Spurred by severe natural gas shortages the decade before and Congress' passage of the NGPA, the regulatory landscape for natural gas pipelines began to change in the 1980's, creating a more competitive interstate pipeline market. Through a series of orders that would span the next two decades, the Commission gradually separated the merchant function (sales of the gas commodity) and the transportation function of natural gas pipelines. Ultimately this created the transportation-only regulatory construct that exists today for interstate natural gas pipelines. Pipeline companies no longer own the gas that they transport (similar to commercial trucking companies, such as FedEx or UPS, which generally do not own the goods that they transport).

Beginning in 1984, FERC issued Order No. 380, which eliminated the minimum commodity bill provisions in interstate pipeline supply contracts, which had required contract holders to purchase a defined amount of gas regardless of whether it was needed or not. FERC found that these provisions prevented clear price signals between the natural gas wellhead and burner tip. FERC expressly noted that its intent in Order No. 380 was to restructure the natural gas industry and increase competition. The elimination of minimum commodity bill provisions effectively put interstate pipelines at risk for the long-term natural gas commodity contracts they had entered into to support their natural gas supply obligations.

FERC's next step in restructuring the natural gas industry came in 1985 when it issued Order No. 436, which granted interstate pipelines the ability to offer open access transportation services independent of their natural gas commodity sales services. In Order No. 436, FERC also adopted regulations permitting pipelines to charge less than their maximum applicable rates set by FERC for transportation services. This change allowed pipelines to compete, for the first time, for transportation customers that had lower cost options.

Order No. 636, which FERC issued in 1992, fundamentally changed the competitive environment under which interstate pipelines operated. Interstate pipelines were no longer allowed to provide bundled transportation and commodity services. This restructuring of the interstate pipeline industry followed Congress' urging that FERC improve the competitive structure of the natural gas industry to maximize the benefits of the competitive natural gas commodity market that Congress fostered by passing the Natural Gas Policy Act in 1978 and the Wellhead Decontrol Act in 1984. Order No. 636 resulted in interstate pipelines becoming only transportation/storage providers. FERC's objective in Order No. 636 was "to ensure that all shippers have meaningful access to the pipeline transportation grid so that willing buyers and sellers can meet in a competitive, national market to transact the most efficient deals possible." (A "shipper" is a pipeline customer – any entity that pays to transport natural gas on a pipeline. These shippers can include local distribution companies, electric generators, industrial consumers, natural gas producers, natural gas marketers, etc.) The implementation of Order No. 636 substantially increased competition across the entire interstate pipeline system, including for the first time competition from pipelines' own shippers who were allowed to release their capacity contractually held on the pipeline and sell it directly to another pipeline customer.

Order No. 637, which FERC issued in 2000, provided even more flexibility to shippers and further increased competition across the pipeline system by implementing new shipper rights in scheduling procedures, defining priority of service rights associated with the receipt and delivery points in a shipper's transportation contract, and giving shippers the ability to segment their capacity path (divide their single contract into separate smaller component parts which allows them to multiply their capacity rights). Interstate pipelines provide unbundled transportation service and shippers contract for their own natural gas supplies either directly or through a bundled transportation-and-supply service provided by a producer or marketer of their choice. Many markets, both on the supply and delivery ends of pipelines, are now served by multiple pipelines providing consumers with choices that simply did not exist prior to the industry's restructuring.

The Natural Gas Act has allowed FERC the flexibility to adapt its regulatory regime to changing circumstances while still ensuring just and reasonable pipeline rates. The numerous regulatory changes implemented by FERC have resulted in a transparent and highly-competitive interstate natural gas market. These reforms were only possible because of the flexible authority provided by the Natural Gas Act, which directs FERC to approve pipeline projects which are in the "public convenience and necessity" and ensure pipeline rates are "just and reasonable." The heightened competition has resulted in an increased level of discounted and negotiated rate transportation agreements that are below a pipeline's FERC-approved maximum applicable rates. FERC policies have achieved the goals that supported the adoption of Order Nos. 636 and 637. While this competition has been beneficial to both producers and consumers of natural gas, it has increased the business risks of interstate pipelines. Congress should avoid adopting

proscriptive legislation that would limit FERC's ability, as well as that of the industry, to respond to future market developments and public need.

THE CORE PROVISIONS OF THE NATURAL GAS ACT APPROPRIATELY BALANCE THE INTERESTS OF CONSUMERS AND INVESTORS.

The changes to the natural gas market and regulatory regime have been accomplished without changing the core ratemaking provisions of the Natural Gas Act. The maximum applicable rates a pipeline is authorized to charge by FERC are established under the three different sections of the Natural Gas Act. For new facilities, the initial maximum applicable rates are established under Section 7. For established facilities, the maximum applicable rates are established under either Section 4 or 5, as discussed below. If market conditions do not permit a pipeline to charge its maximum applicable rate, a pipeline is permitted to offer a lower rate to attract business. Where markets conditions would permit a pipeline to charge a rate higher than the maximum applicable rate, pipelines are generally not permitted to exceed their rate caps to capture higher revenues even though a pipeline's customers can release (sub-let and/or sell) their contracted capacity without any price cap for terms of up to one year.

> **Section 4 of the Natural Gas Act (pipeline has the burden of proof).** Section 4 permits pipelines to propose to increase their rates, and FERC will approve the proposed rates if the pipeline meets its burden of proof that those rates are just and reasonable. Section 4 rate cases are prospective in nature, utilizing actual financial data as a base and projecting into the future to take into account known upcoming changes in pipeline costs and expected contracting levels. In a Section 4 rate case, all aspects of a pipeline's rates are under review, and the pipeline is responsible for supporting its proposed rates in litigation to meet its burden of proof that its proposed rates are just and reasonable. Proposed rates do not go into effect immediately. In cases of proposed rate increases, FERC typically suspends the rates such that they can go into effect six months after the pipeline's rate filing. If the pipeline chooses to implement the proposed rates after this six-month suspension window, it may do so but the rates are "subject to refund." This means that once the case is resolved, the new rates that were implemented by the pipeline are adjusted for the final resolved rate back to the date of implementation. For example, if FERC ultimately determines that the just and reasonable maximum applicable rates in the case are lower than those rates initially proposed by the pipeline, then the pipeline is required to refund the difference between those rates all the way back to the date of implementation of the proposed rates (with interest) to its customers. If a pipeline proposed a $1.00 rate, implemented that rate on January 1, 2019, and then subsequently settled its case on December 15, 2019, for $0.75, the pipeline would be required to refund the $0.25 difference (plus interest) to those customers that were charged the new rates during the January 1, 2019, through December 15, 2019, period. Customers that have

negotiated rates or discounted rates are generally not affected by a rate increase for the term of their contracts.

Section 5 of the Natural Gas Act (FERC/customer has the burden of proof). Section 5 authorizes FERC to investigate the rates of an interstate pipeline either upon its own initiative or in response to a complaint by a pipeline customer. Section 5 reviews are retrospective and only focus on pipeline costs and contracting within a specific time window without regard to upcoming known changes in costs and contracting levels. If FERC ultimately determines that the pipeline's existing maximum applicable rates are "unjust and unreasonable," FERC will require the pipeline to implement new maximum applicable rates that FERC determines are "just and reasonable." The new rates take effect after FERC has made its rate determination. Customers with discounted or negotiated rate agreements are generally not affected by such a rate determination during the term of their contracts.

Section 7 of the Natural Gas Act (pipeline has the burden proof). Section 7 authorizes FERC to establish initial maximum applicable rates for newly-certificated pipeline facilities. As part of a Section 7 certificate proceeding, FERC reviews a pipeline's proposed initial rate and will approve that rate if FERC finds that it is in the "public interest." A pipeline's initial rate remains in place until permanent "just and reasonable" rates are established pursuant to the pipeline's next ratemaking procedures under either Section 4 or 5 of the Natural Gas Act.

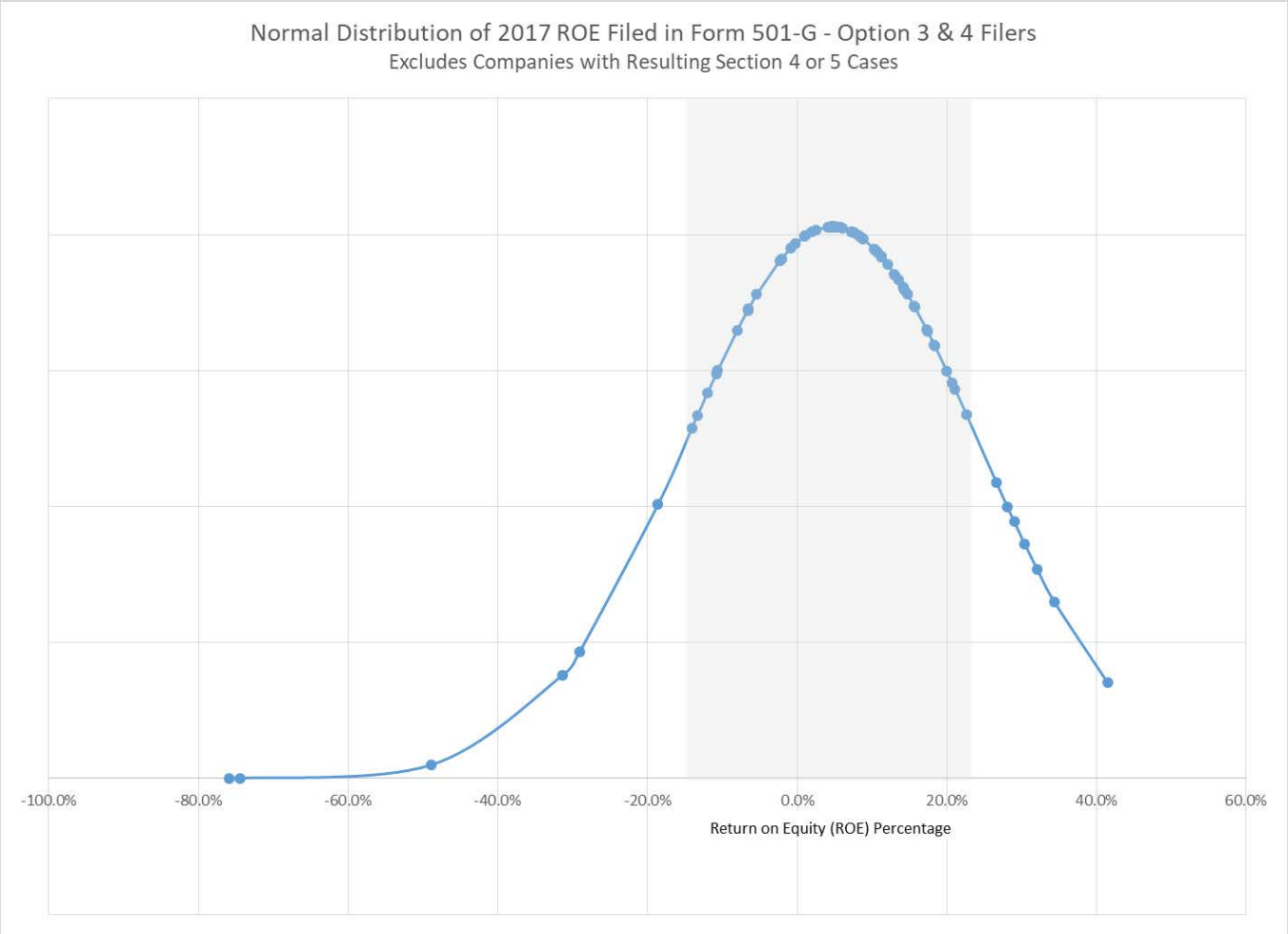
The Natural Gas Act's core regulatory principle of "just and reasonable" rates has been, and continues to be flexible enough to govern pipeline ratemaking under changing market and regulatory conditions. Soon after the passage of the Natural Gas Act, the Supreme Court had the opportunity to review the Natural Gas Act's ratemaking provisions in the landmark case of *Federal Power Commission v Hope Natural Gas Company.* The Supreme Court explained that the ratemaking process established by the Natural Gas Act, i.e., the establishment of "just and reasonable" rates, "involves a balancing of the investor and the consumer interests."

The Supreme Court also explained that the returns provided to pipeline investors through pipeline rates must "be commensurate with returns on investments in other enterprises having corresponding risks" and "be sufficient to assure confidence in the financial integrity of the enterprise, **so as to maintain its credit and to attract capital**." (Emphasis added.) These standards ensure that the interests of both pipeline investors and consumers are protected in the ratemaking process.

FERC HAS ACTIVELY EXERCISED ITS SECTION 5 AUTHORITY TO INVESTIGATE PIPELINE RATES.

FERC has been active in reviewing pipeline rates, using the authority provided by Section 5 of the Natural Gas Act on multiple occasions. Since 2009, FERC has initiated twenty-five Section 5 pipeline rate investigations. FERC also recently took steps to ensure that pipeline rates remain just and reasonable following the reduction of the corporate income tax rate in the Tax Cuts and Jobs Act of 2017 (TCJA). During 2018, FERC required all 129 jurisdictional gas pipelines to make informational filings (called Form 501-G filings) in which the new tax rates were applied to the pipelines' costs and revenues. FERC subjected all 129 jurisdictional gas pipelines to a Natural Gas Act Section 5 style pre-review. In Order No. 849, FERC explained that, by requiring pipelines to submit Form 501-G, it was requiring pipelines to file "an abbreviated cost and revenue study in a format similar to the cost and revenue studies the Commission has attached to its orders initiating NGA section 5 rate investigations in recent years." To date, FERC now has addressed almost 97 percent of the Form 501-G dockets (125 of the 129 pipelines). As a result of FERC's actions, approximately 30 percent of pipelines reached uncontested rate settlements with their customers, unilaterally proposed rate reductions to reflect the tax reductions, or engaged in a full rate review that incorporated the lower tax rate implemented through the TCJA. FERC initiated Section 5 investigations with respect to six interstate pipelines to determine whether their rates may need to be reduced based upon the information submitted on their Form 501-G filings. These actions demonstrate that FERC is willing to and has ample statutory authority to pursue and obtain pipeline rate reductions.

The Form 501-G filings also demonstrate that the majority of interstate pipelines were and are not over-earning in their rates even with the benefit of the lower tax rate. The majority of pipelines were not required by FERC to take any further actions to reduce their rates following FERC's review of their Form 501-Gs. A review of the rates of return shown on the Form 501-Gs of those pipelines that did not take steps to reduce rates as a result of the TCJA and for which Section 5 investigations were not initiated demonstrate the general lack of over-earning by interstate pipelines. Of the 76 pipelines in this group, the average unadjusted return on equity shown on their Form 501-Gs is only 4.7% with a standard deviation of 19.67%. The chart below provides the actual distribution of the ROEs reported by those natural gas pipelines on their Form 501-Gs:



One standard deviation (shaded area on the chart) includes 82.9% of the identified pipelines. Excluding the high and low outliers beyond one standard deviation, the average unadjusted return on equity increases to 6.53%. This demonstrates that FERC's oversight of interstate pipeline rates using the existing ratemaking provisions of the Natural Gas Act is not resulting in unacceptable returns or over-earning by interstate pipelines.

AMENDING SECTION 5 OF THE NATURAL GAS ACT TO INCLUDE A REFUND PROVISION WOULD DISRUPT THE RATE STABILITY PROVIDED BY THE NATURAL GAS ACT.

Amending Section 5 of the Natural Gas Act to include a refund provision would disrupt the rate stability that the Natural Gas Act currently provides to both pipeline investors and consumers. This rate stability has allowed interstate pipelines to make the substantial infrastructure investments that have been, and continue to be, necessary to ensure the delivery of low-cost gas supplies to consumers in the midst of changing market conditions. Gas consumers have greatly

benefited from the low-price environment resulting from their ability to access low-cost supplies via the interstate pipeline network. The balance between investors and consumers created by the Natural Gas Act's ratemaking provisions is working and should not be disturbed.

Certain parties contend that refund authority should be added to Section 5 of the Natural Gas Act simply because Section 206 of the Federal Power Act, which governs FERC's rate investigations of electric transmission providers and wholesale electric power sellers, includes refund authority. Such parties contend that refund authority should be added to Section 5 to provide parity between the electric and natural gas transmission industries. This argument ignores that these are two substantially different industries so the parity argument is without merit.

Interstate pipeline rates do not face the same problem that Congress addressed when it added refund authority to Section 206 of the Federal Power Act. Congress initially added refund authority to Section 206 of the Federal Power Act in 1988 to address an issue unique to wholesale electric markets. At that time, the electric industry was behind the gas industry in the restructuring process. FERC-regulated wholesale electric providers sold electricity on a bundled basis that included both electric transmission costs and electric commodity (i.e., electric generation) costs. Electric customers in 1988 were also captive to their local wholesale electric providers and had no ability to have either their electric transmission or commodity needs met by third parties. The addition of refund authority to Section 206 was primarily designed to address complaints about the bundled prices of electricity in a non-competitive market in which electric customers had no ability to switch suppliers.

In 2005, Congress revised the refund authority in Section 206 of the Federal Power Act to make the effective date of refunds earlier than was established in the 1988 amendment. This revision was designed to address problems in the wholesale electric market following the California energy crisis that caused volatile swings in electric commodity prices.

The problems in the electric markets that caused refund authority to be added to the Federal Power Act and later revised are not present in today's interstate natural gas market. Unlike the electric market in 1988, today's natural gas market operates on an unbundled basis. Interstate natural gas pipelines provide only transportation/storage services – they act as a conduit and do not sell the natural gas commodity that they transport. Gas commodity purchasing and pricing is the responsibility of pipeline customers, not the pipeline. Pipeline customers are responsible for and have the option of purchasing their own gas supplies from a producer or marketer of their choice or transporting their own gas supplies. The natural gas market is also entirely different from the electric market in 2005 in which electric commodity prices were the cause for concern. FERC does not regulate the commodity sale of natural gas, which means that

there is no need to amend the Natural Gas Act to provide FERC with refund authority to address natural gas commodity sales.

Today, interstate pipeline customers have far greater options in choosing a pipeline to meet their gas transportation needs. FERC's restructuring of the natural gas industry has created a competitive market for pipeline transportation services. Many interstate pipeline customers are connected to, or have the ability to connect to, multiple pipelines (both interstate and intrastate) to meet their transportation needs. The level of competition in the interstate pipeline market is substantial and bears no resemblance to the non-competitive electric market in 1988. The main justifications for adding refund authority to Section 206 of the Federal Power Act does not exist with respect to natural gas pipelines. Section 206 is a product of particular historical circumstance in the electric industry that bears no resemblance to today's natural gas industry.

Interstate pipelines have materially different business models than today's electric transmission providers. Interstate pipelines and electric utilities each operate under different regulatory structures that create different degrees of business risk. FERC's policies on the electric side have fostered the development of organized wholesale electric markets administered by Regional Transmission Organizations ("RTOs") or Independent System Operators ("ISOs"). Approximately two-thirds of the U.S. electric load is now served in regions administered by RTOs or ISOs. FERC requires RTOs and ISOs to undertake regional transmission planning. Electric transmission owners within RTOs and ISOs have certainty regarding the recovery of the costs of transmission facilities built pursuant to the RTO/ISO regional planning process because their transmission service is subject to only limited competition.

Electric transmission providers operating outside of RTOs and ISOs also have a less risky business profile than interstate pipelines since most of their assets operate within franchised service territories, subject to state public utility regulation. Such companies typically dedicate or sell much of their transmission capacity, as well as the output of the generation assets they own, to their state-regulated distribution divisions, which, in turn, recover those costs in their state-approved, retail rates. The wholesale electric transmission business that is subject to regulation by FERC typically makes up only a small portion of the overall business of the integrated electric utilities operating in these markets. The business model and associated risks of integrated electric utilities operating outside of RTOs and ISOs are not comparable to the risks of interstate pipelines, which are not protected from cost under-recovery and whose entire businesses are subject to FERC's rate regulation.

FERC's policies pursuant to the Natural Gas Act place interstate pipelines at substantially greater risk than electric transmission providers. Interstate pipelines are permitted to

recover the costs of many new facilities only from shippers who use them, are generally at risk for the cost (including cost overruns, for example, from delays in getting the project built) of the new facilities, and will bear the financial burden of any unsubscribed pipeline capacity on those new facilities. Interstate pipelines continue to face substantial competition after facilities have been built and placed in service from other interstate and intrastate pipelines. Interstate pipelines are not guaranteed to recover their investment costs, especially after the initial contracts supporting new infrastructure expire. The differences in cost recovery policies and exposure to competition significantly differentiate the business model and risk profile of interstate pipelines from electric transmission providers.

The difference in business models demonstrates that there is not a parity issue between interstate pipelines and electric transmission providers that needs to be addressed through an amendment to Section 5 because the electric and gas businesses are not similar. Interstate pipelines have less certainty regarding cost recovery, experience greater risks compared to electric transmission providers, and require a further level of rate certainty that is provided by ratemaking provisions of the Natural Gas Act as they exist today.

Adding refund authority to Section 5 of the Natural Gas Act would upset the current balance created by FERC's existing ratemaking provisions. When a pipeline proposes to increase its rates pursuant to Section 4 of the Natural Gas Act, FERC typically waits 30 days to issue an order that accepts and suspends the proposed rates for an additional five-month suspension period. FERC also establishes a rate case hearing in which the justness and reasonableness of the proposed rates are litigated. This means that a pipeline's proposed increased rates under Section 4 cannot go into effect until at least 6 months after the initial rate filing, after which (if the rates are put into effect) they are subject to refund pending the outcome of the rate case as described earlier. At the conclusion of the Section 4 rate case, the final rates are effective only back to the date the proposed rates were put into effect, meaning that there are at least six months between the rate filing and the ultimate effective date of the new rates. For that period, the pre-existing pipeline rates are charged. Granting immediate refund authority (implementation of reduced rates to the time of filing) under Section 5 would create an imbalance between Section 4 and Section 5 due to the inability of the pipeline to increase rates without waiting at least 6 months under Section 4. Adding refund authority to Section 5 would create disparity as opposed to the parity demanded by certain parties.

A review of all Section 5 investigations that FERC has initiated since 2009 shows that each of these investigations, with the exception of two investigations that are currently active, has either been dismissed with no rate change or resulted in a settlement. Of the cases that resulted in a settlement, the new rates went into effect on average 7.4 months following the initiation of the Section 5 rate investigation. This figure does not take into

account that the Commission grants a 75-day window for the pipeline to file a cost and revenue study (information used by FERC and parties to meet their burden of proof under Section 5). Taking into account this window of time for providing cost and revenue information, the average time to reach a settlement drops to 4.9 months. Both of these figures are roughly comparable to the six-month time frame in which pipeline rate increases typically become effective in a Section 4 rate case. Congress should avoid disturbing the balance created by the existing ratemaking provisions of the Natural Gas Act.

The addition of refund authority would not have its intended effect. Amending the time-tested ratemaking provisions of the Natural Gas Act would introduce an additional level of rate uncertainty for interstate pipelines and their investors. This rate uncertainty could have the potential to increase costs and upset certain of the investment decisions by interstate pipelines as well as their ability to raise external capital at costs that do not inhibit the construction of necessary infrastructure.

In 2018, the Commission announced a change in its policy of allowing income tax adjustments for pipelines organized under a Master Limited Partnership (MLP). In the week subsequent to that change in policy, approximately $15 billion in market value disappeared from the nine largest pipeline companies in the country irrespective of whether they were a corporation or MLP. The market signal was that the change in FERC policy created uncertainty in revenue recovery for all pipelines. Regulatory and rate uncertainty traditionally have increased the cost of capital, which makes it more expensive for pipelines to serve customers, especially those who are currently not served or need additional service. The increased costs to access capital is a real cost that impacts the cost of providing service as an interstate pipeline. These increased costs ultimately result in higher transportation rates for pipeline customers. A report by ICF International (prepared for the INGAA Foundation) projects that interstate pipelines will be required to invest between $165 billion and $206 billion of capital in interstate pipeline transmission infrastructure by 2035 to meet the continued needs of the natural gas industry. Congress should not introduce rate uncertainty that creates a chilling effect on this necessary infrastructure investment.

Any rate refunds would not provide substantial benefits to natural gas consumers. As I discussed earlier, interstate pipeline rates make up only a small fraction of the delivered price of natural gas that is paid by the consumer even at today's very low natural gas prices. Interstate pipeline rate refunds would not cause a windfall decrease in delivered gas prices. As reflected in the EIA data, pipeline transportation costs account for approximately 12% of the total average cost of delivered gas, in a low price environment, to a residential consumer. Assuming a total delivered cost of $1.00, a 10% reduction in interstate transportation costs would result in a total delivered cost of $0.988 or a 1.2%

reduction in the total delivered cost. Refunds would also have limited impact on the ultimate consumer. A large portion of interstate pipelines customers are large gas producers and marketers who are not required to pass refunds along to gas consumers. Industrial pipeline customers also have no obligation to share pipeline refunds with the ultimate consumer of their products. Any refunds would go to these companies' bottom lines and not back to their customers.

Refund authority is also not necessary given the nature of most of the contracts on interstate pipelines. Due to competition, many pipeline customers have discounted or negotiated rate pipeline transportation contracts that are already well below the pipelines' maximum applicable rates and which would not receive any refunds. A recent study by INGAA has shown that approximately 65% percent of pipeline transportation capacity contracts are at discounted or negotiated rates with the majority being below the maximum applicable rate. Refund authority would have little or no impact for customers paying these discounted or negotiated rates.

It is unclear whether amending Section 5 to add refund authority would have an impact on the prices paid by gas consumers. The price of transporting most natural gas is based upon current market conditions, which explains the level of discounting in the market, not a pipeline's maximum applicable rates. Given this limited potential impact, there is no need to change the well-established ratemaking provisions of the Natural Gas Act, especially now given the thorough review FERC completed of the interstate pipelines' rates less than 18 months ago during the Form 501-G process. FERC has reviewed the rates of all jurisdictional pipelines with that process.

Interstate pipeline rates are generally the result of rate settlements that provide rate certainty for both interstate pipelines and their customers. FERC policy encourages the collaborative resolution of pipeline rate issues through rate settlements. The vast majority of interstate pipeline rate proceedings, regardless of whether they are initiated by an interstate pipeline or by FERC, conclude in uncontested settlements that are the product of extensive negotiations between sophisticated and experienced market participants, which include, but are not limited to, the pipeline's customers, state public service commissions, consumer advocate groups, and FERC trial staff. The preference among pipelines and shippers for negotiating settlements reflects the resource-intensive nature of contested FERC rate proceedings. With increasing frequency, pipelines are negotiating pre-filing rate settlements with their customers and affected parties prior to a rate proceeding being initiated by the pipeline or FERC. Parties to these settlement processes would generally rather negotiate to develop mutually beneficial terms that provide predictable and competitive rates. The preference for predictability is demonstrated by provisions commonly found in settlements that limit the rights of both the pipeline and its customers to seek to change the settled pipeline rights during defined

periods. The use of settlements enhances the rate certainty for all parties and creates a stable environment for infrastructure investment by all participants in the natural gas industry.

FERC DOES NOT AUTHORIZE UNREASONABLE RETURNS FOR PIPELINE EXPANSION PROJECTS.

FERC has been criticized for authorizing pipelines to earn purportedly unreasonable returns for building pipeline expansions. A common misconception is that FERC allows pipelines to earn a 14 percent return on equity for their pipeline expansions. This criticism ignores that most pipeline expansion projects do not meet FERC's criteria for a 14 percent return on equity, and that most pipeline expansion projects actually earn far less than a 14 percent return on equity. FERC authorizes a 14 percent return on equity only for new, so-called "greenfield" pipelines. The 14 percent return on equity for greenfield pipelines is designed to reflect the new pipeline's business risk of having no existing customer base and having to construct a new pipeline in an increasingly challenging permitting environment. FERC has determined that pipelines that are expanding their existing systems or converting existing pipelines (such as oil pipelines) to provide interstate natural gas service are *not* permitted to earn a 14 percent return on equity. FERC instead applies a policy that non-greenfield pipelines must use the return on equity that was approved in the pipeline's most recently-litigated or settled rate proceeding under Section 4 of the Natural Gas Act. The vast majority of pipeline expansions are not greenfield pipelines and are not eligible to pursue a 14 percent return on equity. Most pipeline expansion projects only have the opportunity to earn the same returns as the facilities on other parts of the pipeline's existing system.

Arguments regarding the returns earned by interstate pipeline for expansion projects also ignore that the rates for most pipeline expansions are subject to negotiated rates that are fixed for the life of the pipeline transportation contract. Interstate pipelines and their customers use negotiated rates to provide rate stability and to help ensure the recovery of the substantial infrastructure investment that is typically required to construct a pipeline expansion. FERC is not using its initial ratemaking authority provided by Section 7 of the Natural Gas Act to allow unreasonable returns for expansion projects.

SECTION 7 OF THE NATURAL GAS ACT ENSURES THAT LANDOWNER AND ENVIRONMENTAL CONCERNS ARE ADDRESSED IN APPLICATIONS TO CONSTRUCT INTERSTATE PIPELINES AND DURING CONSTRUCTION.

Section 7 of the Natural Gas Act provides FERC with the exclusive authority to authorize the construction and operation of interstate natural gas pipelines that it finds to be in the "public convenience and necessity." Section 7 also provides that a pipeline found to be in the public convenience and necessity may exercise a federal right of eminent domain to acquire the land along its right of way.

The federal siting authority conferred by the NGA is unique among the statutes administered by FERC. For example, the Federal Power Act does not authorize FERC to site interstate electric transmission lines nor do the surviving portions of the Interstate Commerce Act authorize FERC to site oil pipelines. The uniqueness of natural gas transportation was acknowledged in the legislative history of the NGA, enacted in 1938. It recognized (1) that pipelines were the only practical means to transport natural gas long distances, (2) that the principal markets for natural gas were long distances and often multiple states away from the sources of natural gas supply, and (3) that the states lacked the authority to deal with the need for interstate natural gas transportation. While FERC has exclusive authority under the NGA to find a proposed interstate natural gas pipeline to be in the public convenience and necessity, a pipeline operator also must comply with a host of other federal and, in some cases, state laws to obtain all permits required to proceed with construction. FERC certificate orders are conditioned on obtaining all such authorizations.

Establishing the route upon which the pipeline is ultimately constructed is an involved and data-intensive process that takes many years. This process is iterative and includes many opportunities to adjust the pipeline route to ensure that it minimizes adverse impacts on landowners and the environment. This process typically commences at least a year before a pipeline project is discussed with FERC.

New pipeline facilities are generally constructed because a potential pipeline customer is seeking to transport gas from Point A to Point B in order to meet the needs of the market. These market needs establish the broad routing parameters of a pipeline project. Once the broad routing parameters of a project are established, the pipeline undertakes extensive preparatory work. A potential pipeline project is first subjected to an extensive internal review by the pipeline company to evaluate whether the project is viable from a market, engineering, environmental and financial perspective. Environmental issues and landowners are key considerations, and a project will typically not move forward if adverse impacts are found to present an unacceptable level of constructability risk. Once a project has market support and is approved internally, the pipeline company engages local, state and federal officials and the public about the proposed project and the potential pipeline route. During this process, the proposed route of a pipeline

may go through a series of changes to avoid sensitive environmental areas or to address landowner/community concerns that the company learns about in these outreach meetings. The refining of the route continues throughout the entire certificate process.

FERC's environmental review of a project often commences more than six months before a certificate application is filed with FERC. Through a pre-filing process administered by FERC, applicants conduct early outreach to stakeholders, FERC staff, and other permitting agencies to design projects to avoid or minimize adverse environmental and landowner impacts. During this process, pipelines often change their proposed routes to address landowners' land use concerns, to avoid historical or environmentally-sensitive areas, and to accommodate local zoning concerns. Once the pipeline files its certificate application, FERC undertakes an extensive review of the project in an open public docket that allows for the participation of all interested parties. FERC's review includes the preparation of an Environmental Assessment or Environmental Impact Statement pursuant to the National Environmental Policy Act. These environmental documents are comprehensive and must ultimately withstand judicial scrutiny.

During FERC's review of a pipeline application, route changes are again made to address landowner and environmental issues. On Boardwalk's Coastal Bend Header project, Boardwalk made over 70 route modifications to accommodate landowner and environmental interests. INGAA members have agreed to thousands of pipeline relocations and route changes during the project development process.

Even after FERC approves a project, the pipeline is subject to extensive environmental conditions that govern the construction and operation of the pipeline. Among many other things, these conditions include compliance with the Clean Water Act and the Clean Air Act and require the pipeline to use best construction practices.

FERC's approval of a pipeline project considers the route changes and environmental compliance before authorizing construction of a pipeline project. This process helps limit the use of eminent domain to construct a pipeline over the route ultimately approved by FERC; however, the use of eminent domain may still be necessary to construct a project. Congress recognized the need for eminent domain when it amended Section 7 of the Natural Gas Act for the specific purpose of granting this power to pipeline certificate holders. In introducing the eminent domain provision into the Natural Gas Act, the sponsoring Member of Congress stated that, absent the right of eminent domain, "the orders of the [Commission] can be readily and flippantly thwarted at the caprice of a recalcitrant or selfish private concern and thereby defeat a project which has been determined by the Commission to be for the convenience and necessity of thousands of the people of the United States." See Memorandum of Statement by George B. Schwabe, Member of Congress Before the House Committee on Interstate and Foreign Commerce with Respect to H.R. 2956, at p. 379 (Apr. 17, 1947). Congress' addition of eminent domain to the Natural Gas Act recognized the physical reality of constructing a linear pipeline

over an extended distance and the need to ensure that a pipeline project found to be in the public interest could not be blocked by local interests.

Interstate pipelines' use of eminent domain is limited. In 2018, INGAA surveyed 18 of its member companies regarding their use of eminent domain. The survey covered a total of 81 NGA Section 7(c) projects of greater than 10 miles in length that were certificated and placed in service during the last 10 years. The projects covered by the survey included 15,694 individual tracts of land requiring easements. Eminent domain proceedings were initiated on approximately 10% of these individual tracts, and just over 5% of the total tracts involved eminent domain proceedings that remained unsettled long enough to require a hearing for access. Only 1.67% of the individual tracts needed to construct the projects covered by the survey were acquired after a judicial determination of just compensation in the eminent domain proceedings. The limited use of eminent domain continues to be a necessary to ensure the construction of projects that FERC has found to be in the public convenience and necessity.

Section 7 of the Natural Gas Act has provided a durable framework for analyzing pipeline applications and ensuring that landowner and environmental concerns are addressed during the certification and construction process. The time for approval of a large pipeline project under this process can easily surpass three years. Congress should avoid modifications to Section 7 that create additional uncertainty that projects will be completed. Such uncertainty would translate into increased risk for investors that could have a chilling effect on decisions to invest in the infrastructure needed to support the natural gas market and which ultimately benefits consumers.

CONCLUSION

The ratemaking and pipeline certificating provisions of the Natural Gas Act, which Congress adopted over eighty years ago, continue to work by balancing the interests of natural gas investors and consumers as originally intended. Americans currently enjoy historically-low natural gas prices that are the result of both the availability of low-cost gas supplies and the interstate pipelines that transport those supplies to gas-consuming markets. This low price natural gas environment has created substantial benefits for the U.S. economy, residential, commercial, and industrial natural gas consumers, enhanced the nation's energy security, promoted the reliability of the electric grid, and helped facilitate the integration of renewable resources into electric markets. These benefits would not be enjoyed by consumers if pipeline infrastructure was not built to bring gas from where it is produced to where it is consumed. The build-out of this infrastructure was facilitated by a stable and predictable regulatory environment created by that Natural Gas Act. Congress should avoid upsetting the current balance of investor and consumer interests provided by the Natural Gas Act's time-tested ratemaking provisions and should refrain from modifying the Natural Gas Act's pipeline certification provisions that ensure that landowner and environmental interests are fully considered while still allowing necessary infrastructure to be constructed in a predictable manner.

Thank you for this opportunity to testify before you today. I look forward to your questions.