

**STATEMENT OF
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**BEFORE THE
SUBCOMMITTEE ON ENERGY AND POWER
COMMITTEE ON ENERGY AND COMMERCE
U.S. HOUSE OF REPRESENTATIVES**

**REGARDING THE
BENEFITS OF AND CHALLENGES TO ENERGY ACCESS
IN THE 21ST CENTURY**

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Good morning Chairman Whitfield, Ranking Member Rush and members of the Subcommittee. My name is Donald F. Santa, and I am President and CEO of the Interstate Natural Gas Association of America, or INGAA. INGAA represents interstate natural gas transmission pipeline operators in the U.S. and Canada. Our 26 members account for virtually all of the major interstate natural gas transmission pipelines in North America and operate about 200,000 miles of transmission pipe in the U.S.

Thank you for the opportunity to share INGAA's views on this topic. Our analysis, and what we actually experienced during this extremely cold winter, all point to the need for the U.S. to build significant new natural gas infrastructure. Simply put, we need to keep pace with the changing natural gas supply and demand picture. Infrastructure designed to meet the challenges of the past will not necessarily meet the challenges of the future. Congress can help in one area that I will touch upon in a few moments.

I do not have to tell anyone that this has been a demanding winter. You have no doubt heard about the challenges of serving energy consumers throughout the U.S. during these extended periods of extreme cold. With but extremely few exceptions, there have been no service disruptions or curtailments for natural gas pipeline customers that contracted for reliable, firm service. The rare disruptions were caused by mechanical difficulties and were limited to only a day or so. Given the magnitude of demand across much of the country, the extreme operating

conditions and the resulting stress placed on the overall system, the natural gas transmission pipeline industry's performance has been remarkable.

It is worth contrasting this experience with what occurred in the 1970s. The natural gas marketplace was, in those days, completely different. The federal government set the wellhead price of natural gas sold in interstate commerce, intrastate markets in producing states were wholly separate from the interstate market, and the answer for shortages in the inflexible interstate market was a government-dictated allocation of supply based on curtailment priorities. Consumers, and many of our nation's leaders, believed that the U.S. was "running out of natural gas." This lack of interstate supply and interconnected infrastructure, coupled with several unusually cold winters in the late 1970s, caused significant natural gas service disruptions. Schools closed for extended periods, and some businesses ceased operations until warmer weather arrived.

We have come a long way since then. Congress decontrolled natural gas wellhead prices, thus providing an incentive for entrepreneurs to explore for and produce new natural gas supplies. The Federal Energy Regulatory Commission (FERC) restructured the interstate pipeline sector, unbundling commodity sales from transportation, and thereby gave pipeline customers the opportunity to realize the benefits of competition at the wellhead.

The restructuring of the nation's natural gas markets that began with Congress' decision in 1978 to initiate a phased decontrol of wellhead natural gas prices has been a remarkable success. We have gone from the mistaken impression that the U.S. was "running out of gas" to being the world's largest producer of natural gas. Our robust, nationwide pipeline network is the envy of the world. Most major markets and all major producing basins are connected to multiple pipelines, and as a result we have competition among entities that were assumed to be "natural monopolies" several decades ago. This phenomenal transformation of our energy sector has provided our country a unique competitive advantage in the global market. No other country has this combination of abundant natural gas supply and robust pipeline infrastructure.

Natural Gas Pipeline Model

One of the major challenges today, as we continue to develop and consume our natural gas resources, is building infrastructure that keeps pace with the evolving supply and demand realities. In connection with this, it is critically important to understand that this is not a "build it and they will come" business. Pipeline infrastructure is not built on speculation. Instead, natural

gas transmission pipelines are built to meet the needs of firm shippers willing to sign long-term contracts for pipeline capacity utilization. Why is this?

First, natural gas transmission pipelines are capital intensive, long-lived, immobile assets. Compared with other modes of transportation -- a ship, an airplane, a train or a truck -- a pipeline cannot be relocated in response to shifts in the marketplace. While pipelines can be repurposed in some cases (for example, by changing the direction of product flows or converting a pipeline from natural gas to crude oil transportation), such opportunities typically do not exist. Generally speaking, once a pipeline is in the ground, the operator has made a long-term commitment.

Next, in order for FERC to grant a pipeline company authority to construct an interstate natural gas pipeline, it must find that the pipeline is needed. In the terms used by the Natural Gas Act, FERC must find that the project meets the “public convenience and necessity.” While this can be demonstrated in a number of ways, the most typical way is for the pipeline company to present service agreements in which shippers commit to paying for firm service over a term of multiple years. In other words, if enough customers are willing to pay reservation charges under a multi-year contract for firm pipeline service, the need for the proposed pipeline has been demonstrated.

Finally, FERC regulates the rates charged by interstate natural gas pipelines, and these rates are established on a cost-of-service basis. Consequently, if the pipeline bets right, it recovers its investment, including the return-on-investment that is part of its regulated rate. If it bets wrong, it does not fully recover its investment. There is no opportunity, however, for a pipeline to collect a premium if it bets correctly and the market value of the transportation exceeds to regulated rate (since it can’t charge more than the regulated rate). Given this asymmetric risk-reward ratio, there is no reason for interstate natural gas pipeline companies to “build it” and hope “they will come.”

Another foundational principle of the natural gas industry is that pipeline customers are responsible for ensuring their own reliability by taking a portfolio of gas services that meets their needs. Unlike the electric power industry, no “reserve margin” is built into natural gas pipelines. There is no overbuilt capacity to be called upon in a pinch. Pipelines are built to meet the needs of firm customers and firm customers only. If a customer needs extremely reliable service, then it can contract for the firm services that produce that level of reliability. In the alternative, if a customer places a premium on minimizing cost, it can purchase interruptible services and save money. But just as its name implies, interruptible service is subject to interruption – particularly on the coldest days of the year – as many such customers learned this winter.

In connection with this, it is worth noting that electric power generators operating in restructured wholesale power markets (in other words, markets administered by independent system operators and regional transmission organizations) typically do not hold firm pipeline capacity. Rather, they rely upon interruptible pipeline capacity or firm capacity acquired in the secondary market (so-called released capacity that is re-sold by firm shippers, usually on a short-term basis). In fact, in most cases, such generators do not hold any pipeline capacity, and instead look to marketers that hold interruptible or released capacity. This works most of the time, but during periods of peak demand, interruptible service can be interrupted and released capacity can be recalled. This is important when thinking about whether pipeline infrastructure will keep pace with demand, because, as I mentioned, the natural gas transmission pipeline companies build to serve firm shippers, and firm shippers only. This can create problems in markets that already are capacity constrained, such as New England. The Subcommittee, I know, has focused on natural gas/electric power integration in several previous hearings.

Midstream Infrastructure Requirements to 2035

We agree that the U.S. needs new pipeline infrastructure, and indeed not only for natural gas transportation but also for natural gas liquids, crude oil and refined petroleum products. The INGAA Foundation, an affiliated entity, has sponsored assessments of the need for new pipeline infrastructure for more than 15 years. These assessments have projected such needs looking forward approximately 20 years. In 2011, the Foundation expanded its assessment to include not only natural gas midstream assets but also crude oil and natural gas liquids.

The INGAA Foundation will release its new assessment of U.S. and Canadian midstream infrastructure requirements, through 2035, on March 17. While I cannot yet provide the details of the report, I can outline the key points.

First, we are estimating that both annual and total natural gas infrastructure capital expenditures, through 2035, will need to be significantly higher than the previous estimate. This is in part because the latest report is counting several types of facilities that were not included in the 2011 report. In addition, however, the assessment foresees a substantial increase in the need to build pipeline “laterals” to power plants, gas storage facilities and processing plants.

Spending for natural gas transmission lines must remain strong in order to keep pace with the need to link new supplies to markets. The assessment, however, projects a greater need for shorter, regional pipelines that connect supply to the existing infrastructure rather than lots of

new, long distance pipelines. For example, there will be significant demand for systems to carry new natural gas supplies from Pennsylvania and West Virginia to nearby markets such as New York and New England. There also will be demand for pipeline capacity to export such production to other regions; in many cases, this will involve redirecting the flow on pipelines that formerly delivered natural gas to such markets.

The estimates for petroleum and natural gas liquids infrastructure also are up significantly, again due in part to including some types of infrastructure that were not included in the 2011 study. Still, the main driver for the increased need for such midstream infrastructure is the dramatic growth in U.S. oil production.

A Word on Pipeline Safety

Let me turn to pipeline safety for a moment. The San Bruno, California tragedy in 2010 was a wake-up call for the natural gas pipeline industry. It reinforced for pipeline operators that pipeline safety is not just a matter of regulatory compliance; it is part of the industry's social license to operate. Therefore, it is critical that we get it right. This is why the INGAA board of directors committed to a goal of zero pipeline safety incidents. Our board did this in advance of Congress reauthorizing the Pipeline Safety Act, and in advance of any new regulations required by that law. We followed this up with a set of concrete, actionable commitments to improve pipeline safety.

Pipeline integrity management programs provide the means to evaluate and reduce pipeline risks. The 2002 Pipeline Safety Act reauthorization directed the federal pipeline safety regulator at the Department of Transportation (DOT) to develop and issue regulations that address risk analysis and integrity management programs. For example, the operators of natural gas transmission pipelines were required to perform a baseline inspection of all pipeline segments in populated areas within 10 years, and to re-inspect those segments every seven years thereafter. The baseline assessments were completed at the end of 2012, and even though a small percentage of pipeline mileage is within populated areas, a far greater portion of the total pipeline mileage was inspected – approximately 60 percent of total mileage to date. INGAA has committed to expand the reach of integrity management to include the entire system, and Congress directed DOT to explore this as well, as part of the 2012 reauthorization.

The San Bruno accident emphasized the importance of knowing what is in the ground. In other words, do pipeline operators have good records concerning the particular materials and construction practices used to build their pipelines and whether those facilities were tested prior

to entering service? And if not, what must operators do to demonstrate that their pipelines are fit for service? These questions were a focus of the 2012 law, and the INGAA membership has committed to ensuring adequate records and testing for all gas transmission lines located near people.

Need for New Pipelines

We recognize, and our data supports, that new natural gas transmission pipelines will be needed to keep pace with the rapid development of new natural gas resources and the increase in natural gas demand. Two things are necessary to make this infrastructure development possible. The first is proper market signals for new capacity. In most regions, this is not a problem. Shippers sign contracts for proposed firm pipeline capacity, and if enough capacity is contracted, a pipeline project stands a reasonable chance of moving forward. Regions with restructured electricity markets, however, present real challenges. This is especially the case when such markets are capacity constrained and rely heavily on natural gas-fired electricity generators. As noted already, New England is the prime example. We have encouraged the regional stakeholders to take steps that will create such price signals and recent initiatives undertaken by the New England states' governors are promising. Still, the region has far to go in resolving the disconnect that has caused its consumers to pay such a premium for natural gas and electricity,

I would note that other regions do not face this mismatch of demand and supply for natural gas infrastructure. Like New England, Florida is also "at the end of the pipeline system," and is heavily dependent on natural gas for power generation. But Florida has not experienced the same problem getting adequate pipeline capacity built. This is because the local electric utilities have the ability, via the Florida Public Service Commission, to contract for firm pipeline service. This support from state regulators, and the ability to recover the cost associated with ensuring reliability in electric rates, makes all the difference in terms of getting needed natural gas infrastructure built.

Beyond these market signals, the pipeline permitting process also must work efficiently. The House has debated (and approved) legislation (H.R. 1900) authored by Rep. Mike Pompeo to bring some discipline and accountability to the pipeline permitting process. We support this legislation and hope the Senate will act soon to move it forward.

Let me address one question that has been raised in connection with H.R. 1900. Some have questioned the need for the legislation, because "the FERC approves pipeline certificates in one year or less." This is certainly true, and if FERC were the only entity from which the sponsor of

a proposed pipeline needed approval, that would be terrific.¹ But, in order to proceed to construction, a proposed pipeline also must obtain other permits from a myriad of federal and state agencies. It is with these permits that the real delays happen, and where real discipline and accountability are needed. INGAA's analysis demonstrates that these agency permits (and not the FERC certificate process) are being delayed for longer periods than in years past. This is not a positive trend, and it is precisely why H.R. 1900 is needed. So please, if you want to take full advantage of new natural gas supplies by constructing the pipeline network that will be needed to keep pace with dynamic shifts in supply and demand, enacting H.R. 1900 is one of the few areas where Congress can make a measurable improvement.

Conclusion

A recent Forbes magazine article summed up this winter with the headline "Thanks to Fracking, Natural Gas Supplies (Barely) Withstand 'Polar Vortex' Assault." It is certainly true that this winter would have been a far more troublesome without our new domestic natural gas abundance. But supply is only one side of the coin. The other side is infrastructure, and, indeed, pipelines make new shale gas supplies possible. We should not assume that the current natural gas pipeline and storage infrastructure will be sufficient to handle present and future natural gas supply development. Natural gas has given the U.S. a phenomenal advantage. To realize this advantage fully, we need to build the infrastructure that will permit all Americans to benefit from the shale revolution.

I thank the Subcommittee for the opportunity to testify today.

¹ Note, however, that when the time needed to participate in the FERC pre-filing process is included, the actual time needed to obtain a certificate of public convenience and necessity can approach 24 months. The deadline for FERC contained within H.R. 1900 only pertains to the formal application process, and does not include a deadline for pre-filing activities that take place before a formal application is filed.