UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

National Fuel Gas Supply Corporation	Docket Nos. CP15-115-000
Empire Pipeline, Inc.	CP15-115-001

ORDER GRANTING ABANDONMENT AND ISSUING CERTIFICATES

(Issued February 3, 2017)

BAY, Commissioner, *Separate Statement*

The shale revolution has upended U.S. energy markets. Only a decade ago, the United States was thought to be running out of oil and gas, and imports of both were growing. Today, we are the world's leading producer of oil and gas, with new production coming from shale formations across the United States.[1] To serve the new production areas and to satisfy increasing demand, the interstate pipeline industry has built and is planning to build a large amount of infrastructure. In 2016, daily gas production in the United States stood at 72.4 billion cubic feet per day (Bcfd).[2] That same year, the Commission certificated 17.6 Bcfd of pipeline capacity. This infrastructure expansion, coupled with growing production, has resulted in declining natural gas prices and a significant reduction in basis differentials – the difference in prices between Henry Hub and other gas trading hubs – across most of the United States.

This week the Commission has issued a series of orders that certificate, in aggregate, more than several billion cubic feet of new gas pipeline capacity. This infrastructure can provide significant economic, reliability, and resiliency benefits. Gas is the marginal fuel in most wholesale power markets, and the wholesale price of electricity has dropped by double-digit amounts in 2015[3] and 2016 across the

[1] *United States remains largest producer of petroleum and natural gas hydrocarbons*, U.S. ENERGY INFORMATION ADMINISTRATION: TODAY IN ENERGY (May 23, 2016), http://www.eia.gov/todayinenergy/detail.php?id=26352.

[2] *Short-Term Energy Outlook: Natural Gas*, U.S. ENERGY INFORMATION ADMINISTRATION: ANALYSIS AND PROJECTIONS (Jan. 10, 2017), https://www.eia.gov/outlooks/steo/report/natgas.cfm.

[3] *Wholesale power prices decrease across the country in 2015*, U.S. ENERGY INFORMATION ADMINISTRATION: TODAY IN ENERGY (Jan. 11, 2016), https://www.eia.gov/todayinenergy/detail.php?id=24492.

United States.[4] It is also true that carbon emissions from the power sector have dropped 24 percent from 2005 levels.[5] For comparison purposes, the Clean Power Plan targets a 32 percent reduction from 2005 levels by 2030, so the United States is three-quarters of the way there with 13 years to go.[6] While the increased use of renewable energy has helped, fuel switching from coal to gas has driven much of the reduction since gas emits about half the carbon as coal. In 2016, for the first time ever, more electricity was produced from gas than from coal.[7] Natural gas-fired generators, because of their fast-ramping characteristics, also complement renewable resources and can support a higher penetration of renewables. [8]

Nevertheless, it is also true that the development of natural gas pipeline infrastructure has become increasingly controversial.[9] While FERC does not regulate the production of natural gas, methane emissions, or the use of fracking, many commenters have raised environmental concerns in our certificate proceedings. Moreover, because our certificate authority under the Natural Gas Act carries with it the ability to invoke eminent domain, property rights advocates have also objected to pipeline projects, alleging that private property is not being taken for a public use. As a result, the public interest in our work on energy projects is considerable. In order to respond to this

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[4] *Wholesale power prices in 2016 fell, reflecting lower natural gas prices*, U.S. ENERGY INFORMATION ADMINISTRATION: TODAY IN ENERGY (Jan. 11, 2017), http://www.eia.gov/todayinenergy/detail.php?id=29512.

[5] U.S. Energy Information Administration, *January 2017 Monthly Energy Review* 185 (2017), https://www.eia.gov/totalenergy/data/monthly/pdf/mer.pdf.

[6] *Fact Sheet: Overview of the Clean Power Plan*, U.S. ENVIRONMENTAL PROTECTION AGENCY: THE CLEAN POWER PLAN (Aug. 3, 2015), https://www.epa.gov/sites/production/files/2015-08/documents/fs-cpp-overview.pdf.

[7] *Natural Gas Expected to Surpass Coal in Mix of Fuel Used for U.S. Power Generation in 2016*, U.S. ENERGY INFORMATION ADMINISTRATION: TODAY IN ENERGY (Mar. 11, 2016), http://www.eia.gov/todayinenergy/detail.php?id=25392.

[8] *Pathways to Decarbonization: Natural Gas and Renewable Energy*, JOINT INSTITUTE FOR STRATEGIC ENERGY ANALYSIS (Apr. 2015), http://www.nrel.gov/docs/fy15osti/63904.pdf.

[9] *See, e.g.*, Sierra Club, *The Gas Rush: Locking America into Another Fossil Fuel for Decades* 1 (2017) (noting concern over methane emissions and the "gas rush"), http://content.sierraclub.org/sites/content.sierraclub.org.coal/files/1466-Gas-Rush-Report%2004_web.pdf.

interest, I write separately to encourage the Commission to build on the progress that has been made to date and, in particular, to explore two other issues.

One is how the Commission establishes need in doing its certificate reviews under section 7(c) of the Natural Gas Act. The certificate policy statement, which was issued in 1999, lists a litany of factors for the Commission to consider in evaluating need.[10] Yet, in practice, the Commission has largely relied on the extent to which potential shippers have signed precedent agreements for capacity on the proposed pipeline. This is a useful proxy for need, because presumably shippers would not sign up for capacity unless it was needed. But focusing on precedent agreements may not take into account a variety of other considerations, including, among others: whether the capacity is needed to ensure deliverability to new or existing natural gas-fired generators, whether there is a significant reliability or resiliency benefit; whether the additional capacity promotes competitive markets; whether the precedent agreements are largely signed by affiliates; or whether there is any concern that anticipated markets may fail to materialize. As an example of the latter consideration, LNG import terminals that were built during the early 2000 time period became stranded as shale gas increasingly substituted for LNG imports from overseas.

There are other long-term issues that weigh in favor of examining whether other evidence, in addition to precedent agreements, can help the Commission evaluate project need. It is in the public interest to foster competition for pipeline capacity but also to ensure that the industry remains a healthy one, not subject to costly boom-and-bust cycles. Pipelines are capital intensive and long-lived assets. It is inefficient to build pipelines that may not be needed over the long term and that become stranded assets. Overbuilding may subject ratepayers to increased costs of shipping gas on legacy systems. If a new pipeline takes customers from a legacy system, the remaining captive customers on the system may pay higher rates. Under such circumstances, a cost-benefit analysis may not support building the pipeline.

Adding to the uncertainty, there is fluidity in where gas is being produced in the United States. Some of the first-producing shale plays have already seen output decline as lower-cost basins, like the Marcellus and Utica, gained prominence.[11] Major new

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[10] *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227, at 61,748 (1999) ("The types of public benefits that might be shown are quite diverse but could include meeting unserved demand, eliminating bottlenecks, access to new supplies, lower costs to consumers, providing new interconnects that improve the interstate grid, providing competitive alternatives, increasing electric reliability, or advancing clean air objectives."), *clarified*, 90 FERC ¶ 61,128, *further clarified*, 92 FERC ¶ 61,094 (2000).

[11] U.S. Energy Information Administration, *Drilling Productivity Report* 2 (2017), http://www.eia.gov/petroleum/drilling/pdf/dpr-full.pdf.

production areas are being discovered that may impact gas flows on existing and proposed pipelines.[12] For decades, pipeline flows generally went from south to north and west to east. Production in the Marcellus and Utica led to flow reversals, with gas being transported from east to west and north to south. What happens to infrastructure developed to ship Marcellus and Utica gas west, if gas is cheaper to produce in Texas and Oklahoma? To the extent that producer-shippers are driving the development of new infrastructure, pipeline developers may now be exposed to market risk not present with shippers that are local distribution companies with a reliable rate base and predictable revenue stream. Similarly, it is important to ask what happens if basis differentials largely disappear at major gas trading hubs across the United States. A shipper would not need to transport gas from a more distant hub if it can be readily obtained for the same price from a closer one. This, too, might reduce the revenues of large interstate gas pipelines.

The other issue the Commission should address is how we conduct our environmental reviews of pipeline projects. With respect to upstream impacts, the Commission has concluded in many cases that the pipelines do not cause the production of gas. Under the National Environmental Policy Act (NEPA), in my view, the strongest legal argument against causation is based on *Department of Transportation v. Public Citizen.*[13] *Public Citizen* holds that "where an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant 'cause' of the effect."[14] Here, of course, FERC has no authority to regulate the production of natural gas; unless federal lands are involved, in general, that authority resides with the states.

Despite the growing importance of Marcellus and Utica gas production – it was 22.5 Bcfd in 2016 and is projected to surpass 44 Bcfd by 2050 – the Commission has never conducted a comprehensive study of the environmental consequences of increased

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[12] *USGS Estimates 20 Billion Barrels of Oil in Texas' Wolfcamp Shale Formation*, U.S. GEOLOGICAL SURVEY (Nov. 15, 2016), https://www.usgs.gov/news/usgs-estimates-20-billion-barrels-oil-texas-wolfcamp-shale-formation. In addition, the SCOOP-STACK play in Oklahoma is another major recent find. *Information on the Oklahoma Liquids Plays*, NATURAL GAS INTEL: SHALE DAILY, http://www.naturalgasintel.com/oklahomaliqinfo.

[13] 541 U.S. 752 (2004).

[14] *Id*. at 770. *See also EarthReports v. FERC*, 828 F.3d 949, 956 (2016) (following *Public Citizen*); *Sierra Club v. FERC*, 827 F.3d 59, 68 (D.C. Cir. 2016) (same); *Sierra Club v. FERC*, 827 F.3d 36, 46 (D.C. Cir. 2016) (same).

production from that region.[15] Nor has the Commission performed a programmatic review of gas production in the different shale formations. This review is not required unless there is a proposed federal plan or program to develop the resources at issue.[16] FERC does not have such a plan or program with respect to shale gas. Thus, there is no legal requirement for the Commission to do such a review of gas production from shale formations.

Even if not required by NEPA, in light of the heightened public interest and in the interests of good government, I believe the Commission should analyze the environmental effects of increased regional gas production from the Marcellus and Utica. The Department of Energy has conducted a similar study in connection with the exercise of their obligations under Section 3(a) of the Natural Gas Act.[17] Where it is possible to do so, the Commission should also be open to analyzing the downstream impacts of the use of natural gas and to performing a life-cycle greenhouse gas emissions study, both of which DOE has conducted in issuing permits for LNG exports. This information may be of use to the Commission, the public, and industry in examining the broader issues raised in certification proceedings.

Beyond the two issues I have highlighted, there may well be other issues that could usefully be examined by the Commission. Such an examination would be consistent with the best traditions of FERC, where, time and again, the Commission has sought the views of a diverse range of stakeholders when exploring important issues. Indeed, a recent example of such outreach occurred after the EPA issued its proposed rulemaking on the Clean Power Plan; FERC held a series of technical conferences to examine the implications of the Clean Power Plan for the electric industry. As important as infrastructure development is, it must also occur through processes that continue to promote public participation, transparency, and confidence.

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[15] U.S. Energy Information Administration, *Annual Energy Outlook 2017 with Projections to 2050* 53 (2017), http://www.eia.gov/outlooks/aeo/pdf/0383 (2017).pdf.

[16] *Kleppe v. Sierra Club*, 427 U.S. 390, 400-01 (1976).

[17] *See* U.S. Department of Energy, *Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States* 19 (Aug. 2014), http://energy.gov/sites/prod/files/2014/08/f18/Addendum.pdf.

For all those reasons, I respectfully offer this separate statement.

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Norman C. Bay
Commissioner