

Finding Fault with the Nexus Pipeline? Agency Capture and the Public Good

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ABSTRACT Natural gas is an increasingly vital U.S. energy source that is presently being tapped and transported across state and international boundaries. Controversy engulfs natural gas, from the hydraulic fracturing process used to liberate it from massive, gas-laden Appalachian shale deposits, to the permitting and construction of new interstate pipelines bringing it to markets. This case explores the controversy flowing from the proposed 256-mile-long interstate Nexus pipeline transecting northern Ohio, southeastern Michigan and terminating at the Dawn Hub in Ontario, Canada. As the lead agency regulating and permitting interstate pipelines, the Federal Energy Regulatory Commission is also tasked with mitigating environmental risks through the 1969 National Environmental Policy Act's Environmental Impact Statement process. Pipeline opponents assert that a captured federal agency ignores public and scientific input, inadequately addresses public health and safety risks, preempts local control, and wields eminent domain powers at the expense of landowners, cities, and everyone in the pipeline path. Proponents counter that pipelines are the safest means of transporting domestically abundant, cleaner burning, affordable gas to markets that will boost local and regional economies and serve the public good. Debates over what constitutes the public good are only one set in a long list of contentious issues including pipeline safety, proposed routes, property rights, public voice, and questions over the scientific and democratic validity of the Environmental Impact Statement process. The Nexus pipeline provides a sobering example that simple energy policy solutions and compromise are elusive—effectively fueling greater conflict as the natural gas industry booms.

KEY MESSAGE

Students will understand the controversy and arguments surrounding interstate natural gas pipelines and how agency capture translates into policy outcomes. The case exemplifies the contentious, on-going debates over eminent domain and between federal and local priorities as the United States aggressively transitions to natural gas energy. Finally, students will become familiar with several key laws that control Federal Energy Regulatory Commission action and the roles that science and public participation play in the decision-making process.

INTRODUCTION

Around 400 million years ago, significant areas of what is now Ohio and Pennsylvania were covered with oceans where organic-rich sediments accumulated [1]. Presently,

natural gas locked in these ancient, deeply buried, Marcellus and Utica Shale deposits represents a significant but finite energy source. Amenable federal and state laws, industry-friendly regulatory agencies, technological advances including hydraulic fracturing and horizontal drilling, and resource abundance have enabled a natural gas boom fueling both homes and political conflict [2]. Natural gas is transported via pipelines, which are the safest means of transportation. However, public health and safety, and the environment remain at risk because of the hazardous, flammable, colorless, odorless, and corrosive nature of the gas; and the proximity of pipelines to people, drinking water supplies, rivers, homes, and schools. Debates over pipelines are increasingly commonplace throughout the United States, serving as microcosm of the larger conflict over oil and gas production.

CASE EXAMINATION

In November 2015, NEXUS Gas Transmission, LLC (Nexus) filed an application with the Federal Energy Regulatory Commission (FERC) to build and operate a high-pressure, 36-inch-diameter, 256-mile-long interstate natural gas pipeline to transport up to 1.5 billion cubic feet of gas per day across northern Ohio and southeastern Michigan, to the Dawn Hub in Ontario, Canada [3] (Figure 1). FERC was originally granted authority through the 1938 Natural Gas Act to regulate interstate gas transmission pipelines including siting, permitting, and construction. When a federal agency proposes a major infrastructure project such as interstate pipelines, the 1969 National Environmental Policy Act (NEPA) requires a study of the environmental impacts and possible alternatives. As part of the pre-filing application process (between the summer 2014 to fall 2015), Nexus submitted resource reports to FERC that served as drafts for the official Environmental Impact Statement (EIS). Using these resource reports, FERC then coordinated

with Nexus and authored a Draft Environmental Impact Statement (DEIS, July 2016) and a Final EIS (FEIS, November 2016) intended to address and mitigate any environmental issues from the proposed pipeline [3]. Importantly, the EIS is a regulatory guidance document that sets the standards of enforcement and accountability for both FERC and Nexus. This environmental case study focuses on the Nexus Pipeline FEIS and the conflict flowing from it; while simultaneously providing insights into how place-based conflicts play out through the lens of environmental federalism.

DEFINING THE CONTROVERSY

So, what is the controversy surrounding the Nexus Pipeline and the enabling FEIS? It depends on whom you ask. The coalition of actors promoting the pipeline include: the natural gas exploration, production and transportation industries, the FERC, the U.S. federal government, states of Ohio and Michigan, consumers desiring low energy prices, public utilities, local chambers of commerce, and Nexus itself. Nexus,



FIGURE 1. Nexus Pipeline Proposed Route. This map shows the proposed 256-mile Nexus Pipeline route, transecting northern Ohio and southeastern Michigan, terminating at the Dawn Hub in Ontario, Canada. The compressor stations, where the pipeline pressure is maintained, are also identified. Note, the Maumee River Crossing is near mile marker 180 and in close proximity to the Waterville Compressor Station.

a joint corporation created by Enbridge-Spectra Energy and DTE Energy, asserts that this new pipeline is necessary to connect the Appalachian shale gas to the U.S. Midwest and eastern Canadian markets where consumer demand is growing [4]. Nexus argues that the pipeline will provide consumers with domestically available, cleaner-burning, and affordable energy that advances energy security and addresses climate change. Additionally, Nexus calculates it will create 6,800 construction jobs, \$650 million in wages, and \$830 million in total economic impact, bolstering local and regional economies [4].

The actors opposing the pipeline are highly diverse: municipalities, county trustees, environmental groups, landowners, farmers, individual citizens, public interest groups, and the U.S. Environmental Protection Agency [3]. Farmers and other landowners in the pipeline path assert falling property values, diminished agricultural production, and limited future land-use. Many landowners view the power and use of eminent domain by FERC and industry as an unjust taking of private property, in violation of the U.S. Constitution's Fifth Amendment. Municipalities bemoan lost economic development opportunities and federal preemption of local control. For example, Green (OH) asserts Nexus would cost the city \$123 million over 50 years [5], and FERC's final decision would preempt Oberlin's (OH) local pipeline and fracking ban within its city limits [3]. Further, opponents argue the pipeline is unnecessary because other pipelines can be used, domestic pipeline infrastructure is already overbuilt, the gas is going to Canada, and market demand is low [6, 7].

From an environmental risk perspective, citizens and scientists express concerns over soil, water, and air contamination from infrastructure leaks. Pipelines leak potentially causing explosions, and could threaten populated and sensitive areas like schools, hospitals, and municipal water supplies. According to the Pipeline and Hazardous Materials Safety Administration, between 1997 and 2016 there were 11,460 pipeline incidents, causing 324 deaths and 1,331 injuries [7]. Methane, the primary compound in natural gas, is a potent greenhouse gas and over a 20-year time period, the climate change footprint from natural gas leaks is worse than coal or oil [8].

FEDERAL ENERGY REGULATORY COMMISSION (FERC)

Agency Capture

Federal natural gas policy has an extended and controversial history dating back to the 1938 Natural Gas Act (NGA)

that first established the Federal Power Commission, now FERC, and granted the commission authority over interstate pipelines, facilities, and pricing [2]. FERC is a five-member commission, appointed by the U.S. President and confirmed by the Senate (42USC 84:4 7171). As an independent agency, FERC is supposed to insulate the agency from interest group influence, partisan politics, and avoid agency capture. A government agency is said to be "captured" when its decision-making and policies are dominated by and primarily benefits the business interests it is charged with regulating [9]. Thus, regulated businesses with significant resource advantages take priority over less well-organized groups and the general public, resulting in policies unreflective of the broader public good [10]. Critics argue that FERC fits the classic definition of a captured agency for numerous reasons [11].

The Omnibus Budget Reconciliation Act of 1986 enables FERC to collect fees and annual charges equal to all the costs incurred by the Commission that year. FERC's entire natural gas regulatory program is effectively funded by the industry it is charged with regulating and, arguably, the review and approval process of pipelines is biased in favor of industry. Since this funding mechanism has been in place, FERC has approved 100% of pipeline applications [12]. FERC has consistently and systematically deviated from the NEPA process by: never issuing a civil penalty to a pipeline company for violating the environmental terms of certification; never issuing an Environmental Assessment that found significant impacts necessitating further review; never granting a rehearing request to a non-industry party; issuing "tolling orders" that allow pipeline construction despite appeals to agency decisions; and never funding a Congressionally mandated office to assist non-industry parties in participating in the regulatory process [12]. Finally, FERC employees have "deep ties to the industry they regulate" evidenced by FERC employees seeking jobs with and holding stocks in the industry they regulate [13]. This revolving employment door further underscores the cozy relationship typical of agency capture.

Eminent Domain, Preemption, and the Public Good

The 1938 NGA declares that any person or corporation proposing to build a pipeline and associated infrastructure to transport natural gas in interstate commerce must be granted a "certificate of public convenience and necessity" by FERC, which grants the holder the power of eminent domain, whereby the pipeline company acquires a private

right-of-way to land or other property for the pipeline (15USC 717f(h)). FERC encourages pipeline corporations to acquire right-of-way permission by negotiating with landowners. The more agreements in place, the more favorable the Commission's assessment of the public benefits versus costs. However, if the pipeline company and a property owner cannot agree, the NGA empowers the certificate holder to legally take private property for the pipeline, with payment of compensation to the landowner.

Many landowners argue that the power of eminent domain granted by FERC to industry violates the Constitution's Fifth Amendment. The Fifth Amendment requires that "due process of law" be part of any proceeding that denies a citizen "life, liberty, or property" and requires the government or its agent to compensate citizens when it takes private property for public use [14]. While landowners must be compensated, there is always debate over how much money constitutes just compensation and whether this should include payment for lost economic development and devalued land. During the pre-filing stage and throughout the EIS process, FERC guidance documents encourage pipeline corporations to negotiate with property owners to enter into a contract allowing for access and right-of-way through their property. However, FERC warns property owners that if an agreement cannot be reached, the power of eminent domain will be invoked. Invariably, state and federal courts have jurisdiction and make the final decisions concerning eminent domain and just compensation under the NGA. However, judicial deference to eminent domain claims are the norm.

Not only does the 1938 NGA and subsequent amendments reserve the power of eminent domain for the federal government, but it also preempts state laws and local zoning ordinances. When federal and state law conflict, federal law preempts or displaces state law as articulated in the Supremacy Clause of the U.S. Constitution (U.S. Constitution Article VI, 2) [14]. Weighing in on the constitutionality of the NGA preemption, the U.S. Supreme Court ruled that an entity with a certificate of public convenience and necessity from FERC is not subject to state laws or local zoning ordinances and charters [15]. FERC has broad authority, and may require that the certificate holder comply with state and local laws, but has generally held that preemption is unnecessary unless state and local laws conflict with FERC decision-making and present a barrier to pipeline construction [15]. Cities like Oberlin and Green object to this preemption, and as one resident asserts,

"why won't Nexus and FERC acknowledge the city of Oberlin's ban on this or any federal pipeline" [3, p.R-797]?

The debate over interstate pipelines also centers on how one defines a public good. Is a pipeline constructed by a corporation, which will monetarily benefit, a public good or a private benefit? Should eminent domain be invoked for what is arguably a private benefit at the expense of landowners? As one environmental activist argues, "you can't use eminent domain if it's not for the public good. . . and if that's true that most of the gas will go to Canada, then it's not for the good of the people of the United States" [6].

Conversely, FERC is tasked with ensuring adequate supply and reasonable pricing for gas transported between states and serving markets and consumers in this capacity is also a public good.

NEXUS ENVIRONMENTAL IMPACT STATEMENT

The National Environmental Policy Act (NEPA) requires that government agencies give proper consideration to the environment prior to undertaking any major federal actions including construction of airports, buildings, military complexes, highways, parkland purchases, and interstate pipelines. Environmental Assessments (EAs) and Environmental Impact Statements (EISs), which are assessments of the likelihood of impacts from alternative courses of action, are required from all federal agencies. Typically, pipeline corporations first apply for a permit and then submit an EIS to FERC. The Commission conducts its own review of the efficacy of the plan, asks for public input, and publishes a draft. Importantly, NEPA allows the public to comment on the EIS and FERC is tasked with not only addressing those comments but also assessing risk and mitigating environmental harm. FERC and the pipeline corporation make changes they deem necessary and then submit a final EIS.

The Nexus FEIS is a lengthy, complex, scientifically grounded, engineering focused, and publicly contested document [3]. Within the 541 pages, not including appendices, there are environmental issues relating to geology, soils, water, vegetation, wildlife, air quality, noise, reliability and safety are considered along with socioeconomic, cultural, land-use, and cumulative impacts. With respect to the Nexus Pipeline, one year transpired between the pipeline application and the FEIS (November 2015–2016).

Public Input

Public input on the Nexus Pipeline EIS (2016) is substantial, with 697 individual letters, more than 60 companies and organizations, 19 local agencies and elected officials, three federal agencies (U.S. Department of Interior, U.S. EPA, and U.S. Fish and Wildlife Service) and 1 Native American tribe (Potawatomi) submitting comments totaling over 1,400 pages [3]. Substantively, the wide-ranging comments are overwhelming critical of the proposed pipeline, with concerns spanning environmental, public health and safety, economic, cultural, geologic, and pipeline route issues; and many question the need for the pipeline. Local governments fear pipeline accidents cannot be effectively addressed by their volunteer fire departments, and township trustees voice concerns over damage to agricultural land. One organic farmer in the pipeline path asserts their certification as organic is jeopardized, while many farmers echo concerns for lost property value, diminished crop production, and disrupted drainage tile systems. Municipalities object to lost economic development potential and voice concerns over pipeline proximity to sensitive areas including schools and homes. Individuals fear air and noise contamination from compressor stations and soil and water contamination from pipeline leaks. A number of citizen groups, including UC4POWER, CoRN, Sustainable Medina County, and Neighbors Against Nexus formed to oppose the pipeline.

Throughout the public comments, people are critical of the process arguing it is rushed, public forums are actually closed to debate. One Michigan citizen observes the lack of open public meetings is intentional, and that “Nexus and FERC has tried to silence and divide residents all along the proposed Nexus route from the beginning” [3, p.R-809]. Across northern Ohio, fights between citizens over proposed pipeline routes divides communities, and confidential right-of-way agreements stir animosity between neighbors over who gets better deals from the Nexus’ hired “landmen” negotiators. Signs along the pipeline route read, “NO Trespassing, NO Surveys, NO Pipeline” as angry citizens confront and deny surveyors and landmen access to their property [7]. Threats of violence and intimidation appear from all sides, as exemplified by one landowner’s sign stating, “No Trespassing: Due to the High Cost of an Attorney and our Lack of Patience, WE SHOOT TO KILL!” [7].

FERC asserts that public input is important, as evidenced by the dozen public meetings along the pipeline route.

Further, FERC includes public input on the draft EIS and even addresses many of those concerns in the FEIS. Pipeline opponents assert that most of their comments, including re-routing the pipeline, are ignored. Notably, of the 15 major route alternatives and the 27 minor route variations, only one minor route variation was chosen due to its environmental advantage over the initial route. Although FERC determined that some adverse environmental impacts would occur, the mitigation measures would reduce those impacts to “less-than-significant levels . . . and an environmental inspection program would be implemented to ensure compliance” [3, p.ES17-18]. One such mitigation plan, a horizontal directional drilling (HDD) pipeline crossing of the Maumee River in northwest Ohio is a particular source of controversy.

The Bowling Green Fault and the Maumee River Crossing

As Lake Erie’s largest tributary, the Maumee River is a state scenic river that drains over 5,024 square miles of some of the richest farmland in Ohio [16]. Biologically, the Maumee is noted for its annual walleye migration and spawning, but it also serves as the primary drinking water supply for numerous northwest Ohio communities and remains an important historical and cultural resource. Responding to the FEIS, a citizen action group called United Communities for Protecting Our Water and Elevating Rights (UC4POWER) filed a motion to intervene with FERC, contesting the scientific adequacy of the proposed Maumee River pipeline crossing (MARX) (Figure 2) [17]. Although the FEIS acknowledges that the pipeline would cross the Bowling Green Fault at the Maumee River, the FEIS asserts that the BG Fault is not visible at the surface, and is only identified 2,200 feet below the surface. Citing fault inactivity for some 10,000–20,000 years and the fact that it is buried, the FEIS claims that installing the pipeline below the river does not pose any risk.

Citing two scientifically-based reports focusing on the MARX, UC4POWER argues that the BG Fault is clearly exposed at the surface “as evidenced by satellite imagery, on-the-ground observation, a 1984 U.S. Geological Survey photograph of the BG Fault at nearby Hanson Quarry, and published geological literature on the BG Fault system” [18, 19]. They also argue that the FEIS does not acknowledge that the pipeline would cross the BG Fault system within 600 feet of a regional drinking water supply serving 50,000 people (Figure 2). The drinking water supply and the Maumee River could be contaminated during both

Nexus Pipeline Maumee River Crossing

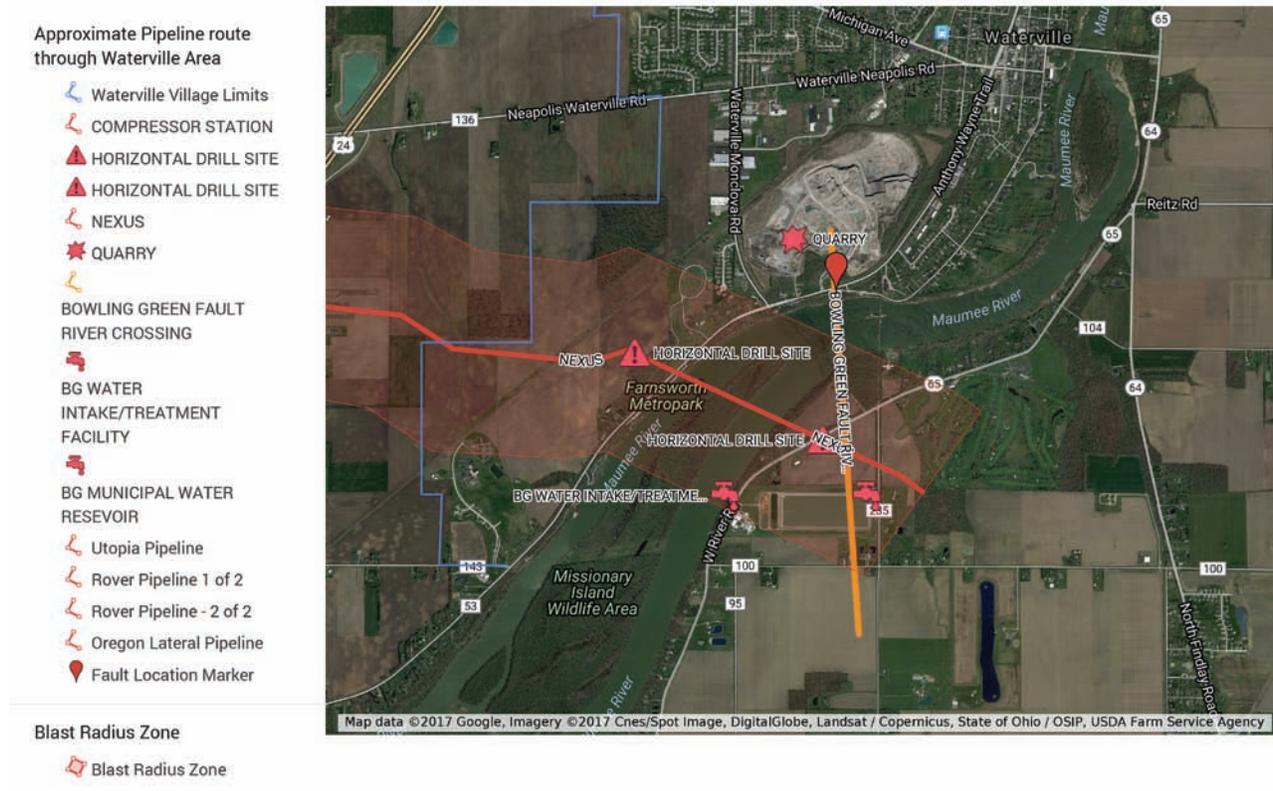


FIGURE 2. Nexus Pipeline Maumee River Crossing. This aerial photograph shows the proposed Nexus Pipeline crossing of the Maumee River. Importantly, the pipeline crosses near the northeast corner of the Bowling Green (BG) City drinking water supply reservoir, through the BG Fault System, and horizontally underneath the Maumee River. The BG Fault is also exposed at the surface in Hanson Quarry on the north side of the Maumee River.

HDD pipeline installation and operation. Additionally, the “Missing the MARX” report declares [19]:

The presence of the BG Fault system exacerbates both the human triggered seismic and water contamination threats from pipeline installation and operations, in perpetuity. Individually, human triggered earthquakes have been documented in relation to quarry activities, reservoir impoundments, and fluid injection into faults. At the MARX, all three exist together. Injecting massive volumes of drilling fluids into the BG Fault system will increase pore pressure, lubricate the fault, and potentially cause enough change in stress to induce an earthquake.

Both UC4POWER and the scientific analysis call for a supplemental EIS and a different Maumee River pipeline crossing location.

In response, FERC Chair Cheryl A. LaFleur asserts that the water plant and reservoir is 1,700 feet upstream from

the proposed pipeline crossing, pipelines are safe, and the BG Fault has already been adequately characterized in the FEIS. Nexus concurs, adding the UC4POWER motion is prejudicial and untimely because the motion occurred nearly 1 year after the draft EIS [20]. This Nexus Pipeline MARX scientific debate over pipeline risks and threats is emblematic of the larger struggle over the role of public participation and science in the EIS process. While FERC and Nexus stand behind the FEIS and their mitigation plans, the serious scientific deficiencies with respect to the MARX remain unaddressed.

CONCLUSIONS

This energy and environmental case study exemplifies the increasingly contentious issues and politics of interstate natural gas pipelines. FERC Chair LaFleur acknowledges this and asserts that, “Pipelines are facing unprecedented

opposition from local and national groups including environmental activists. These groups are active in every FERC docket, as they should be, as well as in my email inbox seven days a week, in my Twitter feed, at our open meetings demanding to be heard, and literally at our door closing down First Street so FERC won't be able to work. We have a situation here . . . I think that our nation is going to have to grapple with our acceptance of gas generation and gas pipelines" [7]. Former FERC Chair, Norman Bay, said, "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 boom-and-bust cycles. It is inefficient to build pipelines that may not be needed over the long term and that become stranded assets" [7]. The decision over Nexus is effectively on hold until one more Commissioner is appointed, but the prospects for another pipeline during this boom time remain strong. The Nexus pipeline provides a sobering example that simple energy policy solutions and compromise are elusive—effectively fueling greater conflict as natural gas booms ahead.

CASE STUDY QUESTIONS

1. What is the controversy over the Nexus Pipeline?
2. What arguments can you make for or against pipeline construction and natural gas as an energy source? Which arguments are more compelling?
3. What evidence exists to support the claim that the Federal Energy Regulatory Commission (FERC) is a captured agency? Are the benefits and costs distributed equitably from FERC policies? Why or why not?
4. Should eminent domain be used to allow interstate pipelines to be constructed? Discuss whether eminent domain is used for a public good or a private gain.
5. Should the federal government continue its preemption of local control? How much input should states and local governments have in this debate?
6. What roles should citizen participation and science play in the NEPA/EIS process? How effective are those roles?

AUTHOR CONTRIBUTIONS

Andrew Kear was the principle researcher, data collector, and writer for this case study paper.

ACKNOWLEDGMENTS

I would like to thank my former student, Lisa Kochheiser, for her insights, determination, and ability to understand and articulate the public and scientific debate surrounding the Nexus pipeline. Lisa sparked my initial interest in this controversial pipeline, provided key insights, and developed the GIS map of the Nexus pipeline Maumee River Crossing (Figure 2). I would also like to thank attorney Terry Lodge for providing support, council, and guidance as I attempted to understand this complex debate. I appreciate the feedback and interaction with my Spring 2017 Environmental Problems (ENVS 3010) class who served as the first group of students to use this case study. I would also like to thank my colleague, Dr. Shannon Orr, for her careful review of this manuscript and for her guidance as a mentor. Also, I would like to thank Sarah Enright for her willingness to listen to my ideas and for her common-sense feedback on the project. Finally, I would like to thank my wife, Lori, and my son, Dillon, for their patience, love, and support.

COMPETING INTERESTS

The author has declared that no competing interests exist.

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