July 25, 2018

Docket No. PL18-1-000
Federal Energy Regulatory Commission
Secretary of the Commission
888 First Street, NE
Washington, D.C. 20426

This comment is submitted pursuant to the Notice of Inquiry (NOI) published in the Federal Register on April 25, 2018,\(^1\) wherein the Federal Energy Regulatory Commission (FERC or the Commission) requests information and stakeholder perspectives on whether, and if so how, the Commission should revise its current policy statement on the certification of new natural gas transportation facilities (Policy Statement)\(^2\) pursuant to the Natural Gas Act (NGA).\(^3\) Of the four areas on which FERC requests input, the North Carolina Department of Environmental Quality (NCDEQ) provides the following comments on (i) the methodology for determining whether there exists a need for a proposed project, including the Commission’s consideration of precedent agreements and contracts for service as evidence of such need and (ii) the Commission’s evaluation of the environmental impact of a proposed project.

Through this NOI, the Commission has opened the door to make important reforms and modernize the process that it uses to evaluate projects. Changes would be welcomed to protect the public interest while ensuring review of proposed pipeline projects fully complies with both the NGA and NEPA.\(^4\) It is our hope that FERC’s review will improve the Commission’s ability to promote orderly competition and innovation in the energy market. As detailed herein, we have concerns about the Commission’s current approach to reviewing natural gas pipeline projects that are sited in and directly affect our State, our citizens, and our environment and natural resources. We respectfully urge the Commission to reexamine its Policy Statement and consider the following comments and recommendations.

I. On the Determination of Need for a Proposed Project

Section 7 of the NGA establishes the standard for granting the Commission’s certificate of public convenience and necessity, based on whether a pipeline project is in the public interest. The current policy statement implements the NGA and sets out criteria FERC considers when it decides whether to authorize the construction of new or the expansion of existing pipeline facilities. Under the current policy, FERC first applies the threshold question – plainly meaning, can the project proceed without subsidization by current customers? If the Commission finds


that a project is financially viable without subsidies, then it will rule that the project satisfies the public convenience and necessity standard. The current policy states that “the threshold requirement for approval...protects all the relevant interests.” However, it is clear that this standard protects only the applicant’s interests. Furthermore, it is only after this threshold standard is met that FERC evaluates the project for potential adverse effects on affected interests. We recommend that the evaluation for potential adverse effects be conducted concurrently with the determination of need.

In applying the existing rubric to determine or evaluate what constitutes “need,” FERC does not assess whether or to what extent the project is vital in supporting local or regional energy demands. FERC currently relies on precedent shipping agreements as a proxy for future energy demand, agreements and contracts that are too often made between and amongst pipeline affiliates. Further, FERC does “not [look] beyond contracts for a further determination of market or supply....” As evidenced by the NOI, we see that the Commission is aware of the concerns articulated by stakeholders, and recognizes the benefit of investigating whether renewable energy resources can be used to meet the future demand for electricity. In 2018, the costs of renewable energy resources and technologies are at record lows and the deployment of these resources has increased dramatically across the country. As battery storage technology and modern grid applications continue to evolve, renewable energy prices will become more economical, making fossil fuels less competitive. It is not in the “public interest” to impose upon utilities – and ultimately ratepayers – the costs of stranded pipeline transmission assets. Trillions of dollars have been diverted from traditional energy generation by large pension funds, insurers, cities and countries, churches and universities because of both the desire for more carbon-neutral energy generation and market pressures. Companies and institutions with divestment targets are realizing that the risk of both stranded assets and harmful impacts on the environment are worth acting on.

FERC should reevaluate its methods and consideration of how it determines the need for pipeline projects. In particular, the Commission should look beyond precedent agreements as its sole basis for assessing such need and address both local and regional energy distribution and need juxtaposed with the capacity afforded by a proposed project. Changes and disruptions in the

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information, mobility, logistics, and energy sectors will likely result in a future that is no longer fossil fuel-dependent. Market demand and projections do not assure stable gas commodity pricing. If anything, recent history shows that the price of natural gas, like that of oil, is volatile and subject to the whims of the global market. Market reports evaluating the demand for new natural gas transportation that are paid for and provided by applicants do not account for life-cycle costs nor do they consider the long-term implications a pipeline project may have on local or regional energy markets. Rather than continuing to implement a one-dimensional approach when evaluating need, FERC should adopt a more thorough policy that takes into account other relevant factors such as current and long-term market conditions.

II. On the Consideration of Environmental Impacts Under the National Environmental Policy Act (NEPA) and the NGA

NEPA requires federal agencies to prepare a detailed statement on the environmental impacts of certain actions before making final decisions. In the environmental impact statement (EIS) an agency must take a close look at the impacts of the proposed action, accounting for direct and cumulative impacts, including reasonably foreseeable indirect impacts. The NGA directs the Commission to consider “all factors bearing on the public interest” when making a Certificate decision, balancing the need for additional natural gas capacity from a proposed pipeline project with the project’s adverse effects, including economic and environmental impacts.

In recent years, federal courts have vacated certain FERC orders based on the environmental impacts review process. Reasons cited include failure to properly consider the full range of pipeline project impacts under NEPA and failing to analyze the impacts of a project in conjunction with other “connected, contemporaneous, closely related, and interdependent” pipeline certificate applications. These legal decisions reveal a fundamental need to modify how the Commission approaches comprehensive impacts while satisfying its legal obligations and reducing further challenges on future decisions. We offer the following recommendations for consideration.

a. The Commission should conduct a statewide and/or regional evaluation of the need for, the impacts of, and alternatives to new pipeline projects.

Recent federal court decisions provide that the Commission’s segmented evaluation does not align with NEPA requirements and increases legal risks. Each state and geographic region has unique environmental and resource characteristics (e.g. geology, soils, ground and surface water, wetlands, aquatic resources, vegetation, wildlife, cultural resources, socioeconomics, air quality, climate change, etc.) and the Commission should assess the impacts of and alternatives to new

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14 District of Columbia Circuit. (2014). Sierra Club, 867 F.3d at 1373-75, supra note 4; Del. Riverkeeper Network v. FERC, 753 F.3d 1304, 1308–09

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pipeline projects based on those unique state or regional features, while conducting a similar geographic assessment of need.

Such a geographically-based approach has been employed by other federal agencies such as the U.S. Environmental Protection Agency (EPA), and offers the opportunity to review proceedings through data, metrics, projections, and other information that the Commission may use to evaluate pipeline projects in a particular state or region, including the cumulative and indirect impacts of pipeline projects. FERC’s current policy of approving natural gas infrastructure projects in a vacuum rather than evaluating projects cumulatively within states or regions inherently increases risks to both customers and the environment.

b. The Commission's alternative assessments should include new technology and clean energy alternatives.

The alternatives analysis required by NEPA represents “the heart of the environmental impact statement.” Federal regulations require the Commission to explore all reasonable alternatives by addressing “the potential for accomplishing the proposed objectives through the use of other systems,” including “non-gas energy alternatives, and/or energy conservation or efficiency, as applicable.” In its 2002 guidance manual, the Commission stated that the alternatives analysis should “[d]escribe the effect of any state or regional energy conservation, load-management, and demand-side management programs on the long-term and short-term demand for the energy to be supplied by the project.”

Natural gas is but one of many resources that can meet customers’ electric and thermal energy needs. Over the time period expected to be covered by FERC’s new policy, natural gas may be more expensive to operate and procure than renewable energy sources. According to the 2018 Annual Energy Outlook (AEO), combustion of natural gas will account for nearly 36% of U.S. electricity generation by 2050. Production from shale gas and tight oil plays as a share of total U.S. natural gas production is projected to continue to grow because of the large size of the associated resources. Wind and solar generation leads the growth in renewables generation, projected to account for 31% of the total electricity generation in 2050. In the coming decades, natural gas consumption in the residential and commercial sectors is projected to be largely flat due to efficiency gains and population shifts. Furthermore, electrification of commercial building and industrial sectors will further propel changes brought about by evolving technologies, customer choice, and state/federal policy actions. The AEO 2018 outlook also

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forecasts that after 2020, natural gas production grows at a higher rate than consumption, with a
projected significant rise in liquefied natural gas (LNG) export.

The Commission’s alternatives analysis should thoroughly and robustly analyze all reasonable
non-gas energy alternatives, including, where applicable, renewables and other clean-energy
sources, storage, electric system upgrades (e.g., transmission efficiency improvements), the use
of demand response and other market-based programs, and the impact of existing and projected
increases in energy efficiency and energy conservation measures. It should also account for state
renewable portfolio standards and other programs and policies requiring or encouraging
increased use of energy efficiency and conservation measures.

FERC should analyze each individual alternative applicable to the state or the region, as well as
the combined effects of all alternatives to meet the need addressed by the proposed project and
its associated environmental impacts. In North Carolina, there is significant interest in such an
analysis, particularly where our state law and policy require expansion of renewable and clean
energy alternatives and increased energy efficiency measures.

c. The Commission must analyze upstream and downstream greenhouse gas (GHG)
emissions associated with pipeline projects.

With over 3,375 miles of shoreline, a robust economy dependent on agriculture and forestry
resources, tourism, and coastal estuaries, North Carolina is particularly vulnerable to the effects
of climate change. These effects have been felt, in varying degrees, from the mountains to the
sea and across every sector of our State’s economy in the form of hurricanes, sea level rise, heat
waves, droughts, heavy precipitation, salt water intrusion, extreme flooding, and fire events.
These phenomena pose serious public health risks, especially to vulnerable populations such as
the elderly and children, disadvantaged communities located in vulnerable areas, and local
economies most affected by weather events.

The current and anticipated impacts of climate change in North Carolina are consistent with the
scientific community’s understanding of the earth’s climate system and the well-accepted
consensus by multi-disciplinary scientific data, analysis, and predictive modeling that the climate
system is changing rapidly primarily due to human activities and particularly from emissions of
GHGs.20,21 The predictions indicate that early actions to curb GHG emissions can stabilize
global temperatures and effective mitigation activities must be implemented to achieve the
desired emission reductions. As North Carolina’s lead agency responsible for safeguarding the
State’s air, water, waste, land resources, coastal fisheries, and the public’s health, we take
seriously our responsibility to protect the citizens of North Carolina, the environment and the
state’s natural resources from the effects of climate change.

Causes. Retrieved from http://nas-sites.org/americasclimatechoices/events/a-discussion-on-climate-change-
evidence-and-causes/
The Commission has a statutory responsibility to document and consider how its approval of a gas pipeline project will lead to increases in emissions of GHGs that contribute to climate change. In 2017, the D.C. Circuit Court of Appeals vacated the Commission’s decision on a pipeline project in Florida due to FERC’s failure to properly analyze GHGs. The court stated that the Commission should do more as part of its environmental review to analyze the climate impacts of pipeline projects.\(^\text{22}\) Despite this clear legal direction, in a recent pipeline approval, the Commission maintained that it is not required to consider the full range of GHG emissions associated with pipeline projects because the impacts of such emissions are too speculative or not causally related to approval of a proposed pipeline project.\(^\text{23}\) In its order denying rehearing in this case, the Commission stated that when it lacks meaningful information about potential future natural gas production or about future power plants, storage facilities, or distribution networks, then these impacts are not reasonably foreseeable. FERC concluded that neither NEPA nor the NGA requires the Commission to quantify or consider GHGs.

We disagree with this conclusion, and agree with the dissenting opinions of Commissioners Glick and LaFleur on recent actions as follows:

“[T]he Commission should be doing more as part of its environmental reviews to analyze the climate impacts of pipeline projects.”\(^\text{24}\)

“[A] proposed project’s contribution to the harm caused by climate change [is] critical to determining whether the Project [is] in the public interest.”\(^\text{25}\)

“[I]t is reasonably foreseeable in the vast majority of cases that the gas being transported by a pipeline we authorize will be burned for electric generation or residential, commercial, or industrial end uses...[T]here is a reasonably close causal relationship between the Commission’s action to authorize a pipeline project...and the downstream GHG emissions that result....”\(^\text{26}\)

“[D]eciding whether a project is in the public interest requires a careful balancing of the economic need for a project and all of its environmental impacts. Climate change impacts of GHG emissions are environmental effects of a project and are part of [the] public interest determination.”\(^\text{27}\)


“Climate change poses an existential threat to our security, economy, environment, and, ultimately, the health of individual citizens...Accordingly, it is critical that the Commission carefully consider [projects’] contributions to climate change, both to fulfill NEPA’s requirements and to determine whether the Projects are in the public interest” (emphasis added).28

“The fact that the pipeline’s exact effect on the demand for natural gas may be unknown is no reason not to consider the type of effect it is likely to have.”29

“[T]he Commission should to be able to rely on the lack of meaningful information to satisfy its obligations under NEPA and the NGA to identify the reasonably foreseeable consequences of its actions.”30

“...[U]nless the Commission makes its best effort and asks the necessary questions that record is unlikely to exist and Congress’ purposes in enacting NEPA will be undermined.”31

There is a high degree of certainty that a significant portion of the natural gas resources that will be transported by pipeline projects will be combusted for electrical generation purposes, for residential or commercial heating purposes, or for industrial fuel purposes. There are several analytical tools and inventory systems available to assist the Commission estimate upstream and downstream GHGs. The Commission has used U.S. Department of Energy (DOE) studies to estimate upper bound emission levels. The EPA’s GHG Reporting Program provides facility level and geographically specific datasets related to upstream operations (e.g. onshore/offshore production, gathering and boosting, natural gas processing, natural gas transmission) and downstream utilization options (e.g., LNG export, LNG storage, electricity generation, industrial combustion).32 Another source is emissions data compiled through state and EPA efforts under the National Emissions Inventory Program (available on a triennial basis).33

Developing estimates of downstream GHG emissions is relatively straightforward. Emissions test data collected by state and federal agencies and private industries show that carbon dioxide (CO2) represents over 99% of GHGs present in natural gas combustion exhaust streams. The remaining portion is made of methane and nitrous oxide and is dependent on the type of combustion technology and operating conditions. Since the carbon content of natural gas is well

30 Ibid
31 Ibid
known and measured through standard methods, CO₂ emissions can be easily estimated by applying a simple emission factor (assuming full combustion efficiency). The Commission should apply emission factors that are most representative of the region to compute GHG emissions based on the amount of natural gas energy diverted to the new pipeline project.

Where essential information is lacking, NEPA requires the Commission to conduct independent research or otherwise compile missing information.³⁴ NEPA also authorizes the Commission to use its best efforts to find out all that it reasonably can and consider reasonably foreseeable environmental consequences of its final decisions.

d. The Commission must take a hard look at environmental justice impacts and stakeholder engagement and outreach.

USEPA defines Environmental Justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.³⁵ The Department recommends the Commission affirm that environmental justice is a major consideration throughout the pipeline certification process.

Long-term effects on communities impacted by pipelines are not adequately considered under current FERC guidelines. Adverse impacts that derive from the construction and maintenance of a natural gas pipeline include, but are not limited to: machinery and equipment driven through communities, disruption of soil which may result in long-term vegetation issues, increased likelihood of invasive species growth, disturbance to farming due to altered terrain which may affect future crop yields, soil compaction or shifting hydrological patterns, and destruction of wetlands, which among their many benefits, provide essential flood control for impacted communities. In addition to these long-term impacts, it is important to understand the very real consequences that the short-term effects of pipeline construction may have on vulnerable populations. A household living in poverty likely has a different consideration of the definition of ‘long-term’ or may not even be able to consider long-term issues when they are overburdened with hardships they may face in their daily lives.

The current environmental justice analysis conducted by FERC lacks adequate demographic considerations and should be more inclusive of other factors such as disability, age, household income, and level of education. Of note, these would not all need to be present in an area for that location to be flagged as a potential area of concern. Rather, these indicators should guide the conduct of specific outreach and the mitigation strategies considered to best protect different population groups.

A traditional cost-benefit analysis is insufficient to address need. The distribution of costs and benefits across different areas are not spread equally; marginalized communities often bear a

disproportionate share of the costs and may derive little benefit, which exacerbates their current disenfranchised status. Furthermore, other costs like environmental degradation due to increased greenhouse gas emissions or sea level rise will negatively impact low-income individuals first. It is important that the Commission recognize which stakeholders will bear most of the costs when an applicant files for a certificate for a pipeline so that appropriate and effective mitigation strategies are applied to minimize the burden on those identified groups.

Finally, the Commission should conduct follow up communications and outreach with potential Environmental Justice populations identified during the EJ analysis. Meaningful engagement with vulnerable populations is essential when gathering public input during the certification process.

The impacts of a pipeline expand well beyond both its physical route and construction. Pipelines can affect the broader communities, especially when possible disasters or pipeline failures are considered. Under the existing certification process, emergency response plans are required due to the legitimate risks of unforeseen failure that could affect workers, landowners, and the broader community. Recognizing this very real risk, we recommend that the Commission expand its public outreach efforts beyond affected landowners. In order to include all potentially impacted parties, the Commission should require outreach within a geographic buffer area of at least 0.5 miles that extends along the proposed pipeline route. Every stakeholder who resides, works, or recreates within this buffer area of the pipeline should be notified early and throughout the certification process. For example, if state or federally-recognized tribal lands are found within 0.5 miles of the proposed route, those tribal governments should be included in the stakeholder process, regardless of whether the pipeline physically passes through sacred lands. Due to the known risk of failures for pipeline construction and maintenance, lands located beyond the route may be exposed to adverse impacts and should be considered in the application.

We recommend that FERC evaluate an applicant’s history of compliance with federal, state, and local laws and regulations, as well as the applicant’s financial affiliations. Knowledge of an applicant’s past compliance would provide stakeholders (federal, state, and local governments and residents) with the information necessary to ask pertinent questions, determine the applicant’s credibility, identify any trending concerns related to the applicant, and establish or require controls to protect human health and the environment.

Thank you for the opportunity to comment on this NOI. I trust that the comments will be considered as the Commission moves forward to address this policy. If you have any questions regarding our comments, please contact me at (919) 707-8619 or sheila.holman@ncdenr.gov.

Sincerely,

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